

**U.S. ARMY CORPS OF ENGINEERS
CIVIL WORKS PROGRAM**

**CONGRESSIONAL SUBMISSION
FISCAL YEAR 2002**

SOUTHWESTERN DIVISION

**Budgetary information will not be released
outside the Department of the Army until
3 April 2001**

Justification of Estimate for Civil Functions Activities
Department of the Army, Corps of Engineers
Fiscal Year 2002

SOUTHWESTERN DIVISION

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SUMMARY, SOUTHWESTERN DIVISION

	<u>FY 2001 Allocation</u>	<u>FY 2002 Request</u>	<u>Increase or Decrease</u>
<u>General Investigations</u>			
Surveys	\$ 8,208,000	\$ 8,523,000	\$ + 315,000
Preconstruction Engineering and Design	3,387,000	2,477,000	- 910,000
Subtotal General Investigations	(11,595,000)	(11,000,000)	(- 595,000)
<u>Construction, General</u>			
Construction	126,462,000	86,500,000	- 39,962,000
Major Rehabilitation	0	0	0
Dam Safety Assurance	10,769,000	11,400,000	+ 631,000
Subtotal Construction, General	(137,231,000)	(97,900,000)	(- 39,331,000)
<u>Operation and Maintenance</u>			
Project Operation	122,357,000	128,643,000	+ 6,286,000
Project Maintenance	137,766,000	123,369,000	- 14,397,000
Subtotal Operation and Maintenance	(260,123,000)	(252,012,000)	(- 8,111,000)
	=====	=====	=====
GRAND TOTAL, SOUTHWESTERN DIVISION	\$ 408,949,000	\$ 360,912,000	\$ - 48,037,000

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

1. SURVEYS - NEW

- a. Navigation Studies: None.
- b. Flood Damage Prevention Studies: None.
- c. Shoreline Protection Studies: None.
- d. Special Studies: The amount of \$213,000 is requested in Fiscal Year 2002 to complete one study.

Arkansas

White River Minimum Flows	850,000	0	637,000	213,000	0
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The study area includes the White River, Norfork River, and the Little Red River in Arkansas, and Missouri. Since the 1930's, several projects involving water supply, flood control and hydropower have been undertaken in the White River basin in Arkansas and Missouri. The environmental affects of these projects that adversely impact all users along the rivers have never been mitigated. This study will develop a plan to provide for aquatic ecosystem restoration and minimum flows along the White, Norfork, and Little Red Rivers. Before the dams on the White, Norfork, and Little Red Rivers were built, these rivers provided warm-water fisheries. After the high dams were built, the tailwater below the dams would no longer support warm water fisheries. Coldwater trout fishery was introduced and sustained in the tailwaters. However, no specific storage was authorized to maintain any minimum flows for the trout fishery below the dams. During periods of non-hydroelectric generation, cold water releases are reduced drastically and the wetted perimeter of the tailwater is reduced. By specifically allocating storage in the lakes for the trout fishery, minimum flows can be sustained in the tail water during the times of non-hydropower generation.

The project is authorized by Section 374 of the Water Resources Development Act of 1999. This legislation authorizes minimum flows be provided by reallocating the following amounts of storage: Beaver Lake, 1.5 feet; Table Rock Lake, 2 feet; Bull Shoals Lake, 5 feet; Norfork Lake, 3.5 feet; and Greers Ferry Lake, 3 feet. These changes cannot be implemented until the Corps can certify that the pool raises are technically sound, environmentally acceptable, and economically justified. The Fiscal year 2002 funds will be used to complete the reconnaissance phase in August 2002. This will determine if any additional planning, design or construction will be required.

SUBTOTAL NEW SPECIAL STUDIES	850,000	0	637,000	213,000	0
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APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$
e. <u>Comprehensive Studies</u> : None.					
f. <u>Project Review Studies</u> : None.					
TOTAL SURVEYS - NEW	850,000	0	637,000	213,000	0

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

2. SURVEYS - CONTINUING

a. Navigation Studies: The amount of \$3,200,000 is requested in Fiscal Year 2002 for continuation of four studies, and for completion of one study.

Arkansas

Arkansas River Navigation Study	5,830,000	1,088,000	753,000	1,200,000	2,789,000
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The study area consists of the entire McClellan-Kerr Arkansas River Navigation System in Arkansas and Oklahoma. During the reconnaissance phase studies, representatives from the towing industry expressed concerns regarding the impacts of high flood flows on the system. Users (barge tow operators) have been experiencing delays in navigation due to low water conditions at the lower end of the system, and high flows resulting from flood conditions on the upper end of the system. The Corps of Engineers is currently constructing the Montgomery Point Lock and Dam in the White River Entrance Channel to alleviate the low water problem at the entrance of the system. The Users have requested the Corps of Engineers investigate problems associated with high flows on the system. When flows reach 60,000 cubic feet per second at Van Buren, Arkansas, barge tow operators are forced to restrict navigation during these high-flow periods. Floods have impacted navigation interests by restricting navigation from one to two months until velocity of the river slowed enough that barges could safely continue. The first phase of this feasibility study will be to investigate flow management to improve the overall economic benefits for navigation on the system by reducing the impacts of high flows from the upper reaches of the Arkansas River watershed. The high velocity period could be shortened by reallocating or adding additional storage in the existing reservoirs on the system; and by constructing additional lakes and levees for navigational flow management. The second phase of the study will investigate deepening of the navigation system over the entire length and providing passing lanes on the Verdigris River in Oklahoma.

Fiscal Year 2001 funds are being used to continue into the feasibility phase of the study, at full Federal expense. Feasibility study activities will include developing numerical hydrologic and hydraulic models of the McClellan-Kerr Arkansas River Navigation System to establish base conditions for analyzing alternatives to minimize the affects of high flood flows.

Fiscal Year 2002 funds will be used to continue the feasibility phase of the study. The completion date for the feasibility study is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas

Corpus Christi Ship Channel	2,851,000	1,337,000	756,000	572,000	186,000
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The Corpus Christi Ship Channel is a federally constructed deep-draft navigation project serving the ports at Harbor Island, Ingleside, and Corpus Christi in Nueces County. The existing project consists of approximately 35 miles of channels: a jettied entrance channel 45 to 47 feet deep and 600 to 700 feet wide from the Gulf of Mexico; the Corpus Christi Ship Channel with a depth of 45 feet and a width of 400 feet; and a branch channel referred to as the La Quinta Channel with a depth of 45 feet and a width of 300 feet. Extension of the La Quinta Channel is being studied under a separate interim feasibility study. Tonnage transported on the Corpus Christi Ship Channel totaled approximately 78 million tons in 1994 and averaged 64 million tons over the past five years. Local interests desire that the existing channel be widened to 500 feet, and deepened to 50 feet for use by larger vessels, resulting in more efficient movement of commodities and, therefore, decreased shipping costs. The existing 45-foot project was designed to accommodate 59,000 dead weight ton (DWT) vessels with a loaded draft of 41 feet; however, large vessels of 100,000 DWT and greater, regularly use the channel. These larger vessels could be loaded to greater depths, offering substantial reductions in vessel operating costs if additional channel depth and width were available. Channel widening would allow for more efficient vessel movements, resulting in reduced traffic delays and increased traffic safety. The feasibility study will also address the addition of barge lanes adjacent to either side of the deep-draft navigation channel. The major commodity shipped on this waterway is crude oil. The reconnaissance study evaluated potential port commerce, transportation savings, construction costs, and dredged material disposal options and required complex economic considerations involving international grain and crude oil projections as well as the assessment of potential environmental impacts in a sensitive estuarine system. The reconnaissance study demonstrated that deepening the project to 50 feet is economically justified. Construction of this alternative would cost about \$152 million and produce a benefit-cost ratio of 2.5. Benefits generated by this project are high priority, commercial navigation benefits which are in accord with current administration policy. The local sponsor for the study is the Port of Corpus Christi Authority. The Feasibility Cost Sharing Agreement was executed on June 2, 1999.

Fiscal Year 2001 funds are being used to continue economic analysis, environmental studies, and assembling hydrological data. Fiscal Year 2002 funds will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$4,490,000, which will be shared on a 50-50 percent basis by the Federal and non-Federal interests. A summary of the study cost sharing is as follows:

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Corpus Christi Ship Channel (continued)

Total Estimated Study Cost	\$ 5,096,000
Reconnaissance Phase (Federal)	\$ 606,000
Feasibility Phase (Federal)	\$ 2,245,000
Feasibility Phase (non-Federal)	\$ 2,245,000

The scheduled completion date of the feasibility phase of the study for the Corpus Christi Ship Channel Feasibility Study is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Corpus Christi Ship Channel, La Quinta Channel	1,120,000	400,000	342,000	378,000	0
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The La Quinta Channel is a Federally constructed deep-draft navigation project serving the Port of Ingleside in Nueces County. It is a tributary channel to the Corpus Christ Ship Channel project, meeting it halfway between the Gulf of Mexico and the Port of Corpus Christi (approximately 12 miles from the Gulf). The existing project consists of over 5 miles of channel 45 feet deep and 300-400 feet wide. Tonnage transported on the La Quinta Channel averages 8.6 million tons per year. Local interests desire first that the existing channel be extended in length to take advantage of additional development, increasing the number of facilities served by the channel. Second, they would like the channel deepened to 50 feet for use by larger vessels, resulting in more efficient movement of commodities and, therefore, decreased shipping costs. The major commodities shipped on this waterway are primary metals and chemicals, with a majority of the tonnage in aluminum ore imports. The reconnaissance study for the entire Corpus Christi Ship Channel project evaluated potential port commerce, transportation savings, construction costs, and dredged material disposal options and required complex economic considerations involving international grain and crude oil projections as well as the assessment of potential environmental impacts in a sensitive estuarine system. Extending the La Quinta channel recently has been identified as the first priority of the sponsor. Construction of the entire Corpus Christi Ship Channel project would cost about \$152 million and produce a benefit-cost ratio of 2.5. Benefits generated by this project are high priority, commercial navigation benefits which are in accord with current administration policy. The local sponsor for the study is the Port of Corpus Christi Authority. The Feasibility Cost Sharing Agreement was executed on June 2, 1999.

Fiscal Year 2001 funds are being used to continue economic analysis, environmental studies, and assembling hydrological data. Fiscal Year 2002 funds will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is \$2,240,000, which will be shared on a 50-50 percent basis by the Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$ 2,240,000
Reconnaissance Phase (Federal)	\$ 0
Feasibility Phase (Federal)	\$ 1,120,000
Feasibility Phase (non-Federal)	\$ 1,120,000

The feasibility phase of the study is scheduled to be completed in August 2002.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Gulf Intracoastal Waterway - Modifications	8,810,000	73,000	146,000	400,000	8,191,000
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The study area encompasses two locations on the Gulf Intracoastal Waterway (GIWW) along the Texas coast. One, the Brazos River Floodgates, is located approximately 7 miles southwest of Freeport, Texas, at the intersection of the Brazos River and the GIWW in Brazoria County. The other, the Colorado River Locks, is located approximately 45 miles southwest of Freeport, Texas, at the intersection of the Colorado River and the GIWW in Matagorda County. Both projects improve navigational safety by controlling traffic flow and currents at these dangerous intersections. Both also serve to control sand and silt deposition at the intersection of the GIWW with the respective rivers. As sediment control structures, they reduce maintenance dredging costs by decreasing the trapping effects of the intersection. The Colorado River Locks have an additional purpose: to raise the navigation traffic from the GIWW to the level of the river during flood stages for crossing the river and lowering the traffic to the level of the GIWW after crossing. The purpose of this study is to determine the need and advisability of modifying the configurations of the crossings to reduce traffic accidents and delays. Delay costs are estimated to exceed \$1 million annually at each location. In addition, the 75-foot gated thruway is too narrow to accommodate the new modern wider barges posing a major safety threat. The crossing was designed when barges were carried astern on a towline rather than the current practice of pushing a string of barges, making navigation of the crossing more difficult. Many tows have to "trip" or break down and moor their barges while taking one barge across at a time, causing delays, particularly during high river stages. Currently, 17 to 25 million tons of commerce pass through these facilities each year. The Gulf Intracoastal Canal Association (GICA) and Texas Waterway Operators Association (TWOA) representing the GIWW users are very interested in improving navigation at these locations, and specifically requested funding for this study be added by Congress to the FY 2000 Appropriations Act. The study objective is to formulate alternative plans that would reduce the navigation difficulties at the crossings, thus reducing the number of accidents, the resulting excessive damages to the facilities and barges, and traffic delays. Potential solutions for minimizing navigation delays and safety concerns include realigning the approaches to the crossings or increasing the width of the gates. An initial appraisal of the entire 423-mile Texas section of the GIWW was completed in November 1989. The State of Texas, Texas Department of Transportation (TXDOT) is the non-Federal sponsor for this project. Although this study is fully Federally funded, construction of any recommended projects will be cost-shared with the Inland Waterways Trust Fund.

Fiscal Year 2001 funds will be used to complete the reconnaissance report. If the reconnaissance report is certified to be in accordance with policy, Fiscal Year 2001 funds will also be used to continue into the feasibility phase of the study. Two interim feasibility studies have been recommended; one for each crossing. The preliminary estimated cost of each interim feasibility study is \$4,330,000 for a feasibility phase total of \$8,660,000. Fiscal Year 2002 funds will

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Gulf Intracoastal Waterway - Modifications (continued)

be used to continue feasibility phase studies.

The reconnaissance phase is scheduled for completion in June 2001. The scheduled completion of the interim feasibility study for the Brazos River Floodgates is being determined. The scheduled completion date for the interim feasibility study for the Colorado River Locks is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Sabine - Neches Waterway	3,715,000	506,000	558,000	650,000	2,001,000
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The Sabine-Neches Waterway, Texas project is located in Beaumont, Orange, Port Arthur, and Sabine Pass in Jefferson and Orange Counties, Texas; and Cameron and Calcasieu Parishes, Louisiana. The Sabine-Neches Waterway is a 75 mile-long deep draft channel which extends from the 42-foot contour of the Gulf of Mexico through a jettied channel to Port Arthur, to Beaumont via the Neches River Channel, and to Orange via the Sabine River Channel. The Sabine-Neches Waterway serves the Ports of Port Arthur, Beaumont and Orange. Modifying the existing Sabine-Neches Waterway would result in a reduction in delays, increased safety, and increased efficiency of transporting commerce on the existing 40-foot deep waterway. Channel depths of 45, 50, and 55 feet will be investigated, as well as, increased channel widths. A major effort in this study will be the coordination of environmentally suitable dredged material placement areas for construction materials, as well as, for future channel maintenance. The Jefferson County Navigation District is the local sponsor for the 40-foot Project to Port Arthur and Beaumont, Texas, and the Orange County Navigation District is the local sponsor for the 30-foot Sabine River Project. The sponsor for this feasibility study is the Jefferson County Navigation District. The Feasibility Cost Sharing Agreement was executed on 6 March 2000.

Fiscal Year 2001 funds are being used to complete the initial plan formulation. Funds required in Fiscal Year 2002, will be used to perform the plan formulation phase of the study. The study cost estimate indicates a feasibility phase cost of \$7,180,000; which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$ 7,305,000
Reconnaissance Phase (Federal)	\$ 125,000
Feasibility Phase (Federal)	\$ 3,590,000
Feasibility Phase (Non-Federal)	\$ 3,590,000

The completion date for the feasibility phase of the study is being determined.

SUBTOTAL NAVIGATION STUDIES	22,326,000	3,404,000	2,555,000	3,200,000	13,167,000
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APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

b. Flood Damage Prevention Studies: The amount of \$1,274,000 is requested in Fiscal Year 2002 for continuation of four studies, and for completion of one study.

Oklahoma

Warr Acres	360,000	86,000	100,000	174,000	0
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Warr Acres is located next to Bethany, Oklahoma, in the Oklahoma City metropolitan area. These heavily populated communities experience frequent flooding from North Canadian Tributary No.14 occurring on average once every two years. The most recent flooding occurred in September 1998. The drainage basin is approximately one mile wide and one and three-quarter mile long, approximately 30 city blocks. The cities of Warr Acres and Bethany have experienced considerable flooding difficulties, which disrupts transportation and emergency vehicles, and impacts homes in the two communities. Potential solutions could include channel improvements or flood detention, or a combination of both. On May 18, 2000 the city of Bethany submitted a letter of intent to cost share equally in the feasibility study phase.

Fiscal Year 2001 funds are being used to fully fund the reconnaissance phase at full Federal expense. Fiscal Year 2001 funds will also be used to continue into the feasibility phase of the study. Funds requested for Fiscal Year 2002 will be used to complete the feasibility phase. The preliminary estimated cost of the feasibility phase is \$520,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 620,000
Reconnaissance Phase (Federal)	\$ 100,000
Feasibility Phase (Federal)	\$ 260,000
Feasibility Phase (Non-Federal)	\$ 260,000

The reconnaissance phase is scheduled for completion in March 2001. The feasibility phase of the study is scheduled to be completed in September 2002.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas

Bois d'Arc Creek, Bonham	770,000	76,000	54,000	200,000	440,000
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Bois d'Arc Creek, a south bank tributary of the Red River at mile 611.0, has its source near Whitewright, Texas. The stream flows in a northeasterly direction about 58 miles to its confluence with the Red River. The basin has a maximum width of about 18 miles. The agricultural land within the basin is fertile and very productive. During the 1960's approximately 40 percent of the watershed was cultivated principally in cotton and corn with lesser amounts in oats, grain sorghums, alfalfa and pecans. The uncultivated areas in the watershed are largely devoted to pasture. Since the 1960's farm production in the area has shifted from cotton to soybeans and peanuts. Extensive flooding affects about 16,100 acres in the lower two-thirds of the basin. Approximately 3,000 acres below U.S. Highway 67 are subject to flooding from headwater overflow and from backwater during high stages along the Red River. The towns of Whitewright and Bonham lie within the basin. The land use within the Basin is essentially the same today as in the 1960's. During the 1960's several dam sites were studied for construction of a multipurpose reservoir, and a site near Bonham, Texas at river mile 43.1 was selected. The Bonham site is approximately 3.5 miles south of the town of Bonham, Texas, and would have controlled a drainage area of approximately 108 square miles. Previous studies concluded that a multipurpose reservoir project on the Bois d'Arc Creek at the Bonham site was economically feasible at that time. In letters dated 24 April 1995 and 16 March 1999, the city of Bonham, Texas, indicated their intent to share equally in the feasibility phase cost that may follow the reconnaissance study.

Fiscal Year 2001 funds are being used to fully fund the reconnaissance phase of the study at full Federal expense. Fiscal Year 2001 funds will also be used to continue into the feasibility phase of the study. Funds requested for Fiscal Year 2002 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is \$1,340,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 1,440,000
Reconnaissance Phase (Federal)	\$ 100,000
Feasibility Phase (Federal)	\$ 670,000
Feasibility Phase (Non-Federal)	\$ 670,000

The reconnaissance phase is scheduled for completion in April 2001. The completion date for the feasibility phase of the study is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Buffalo Bayou and Tributaries (White Oak Bayou)	1,670,000	450,0000	22,000	150,000	1,048,000
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White Oak Bayou, a tributary of Buffalo Bayou has a drainage area of about 113 square miles and lies entirely within Harris County, Texas. White Oak Bayou rises in west central Harris County and flows in a southeasterly direction, a distance of about 34 miles to its confluence with Buffalo Bayou. Its major tributaries are Little White Oak Bayou which enters from the north at mile 1.5, Brickhouse Gully which enters from the west at miles 14.3, Cole Creek which enters from the west at mile 17.3, and Vogel Creek which enters from the north at mile 12.4. The primary water resource problem of the study area stems from frequent flooding of residential properties along White Oak Bayou and its tributaries, which is expected to worsen as the area becomes more populated and residential and commercial areas grow. Damaging floods have occurred in the White Oak Bayou Basin in 1935 (the flood of record), 1968, 1969, 1970, 1972, 1979, 1981, 1982, 1983, 1984, 1989, 1992, and 1998. The 1998 event, from Tropical Storm Frances, produced up to 14 inches of rain, flooded 1,200 homes in this watershed, and caused over \$100 million in damages in the Houston and Galveston areas. There are over 7,000 structures subject to flooding in the 100 year (one percent chance) floodplain, with property values that exceed \$400,000,000. The onetime occurrence of a 100 year (one percent chance) flood would cause property damages of approximately \$258,000,000. The first 10.7 miles has been constructed as part of a Federal project authorized in FY 1954 and 1965. Due to extensive residential development of the flood plain and settlement due to extraction of ground water, the project is not effective as constructed. A series of detention reservoirs and channel adjustments in the upper reaches could facilitate drainage in the watershed. The non-Federal sponsor, the Harris County Flood Control District (HCFCD), will perform the study under the authority of Section 211 of the Water Resources Development Act of 1996 (WRDA 1996), to consider the entire White Oak Bayou Basin, including segments where the Federal project has already been constructed.

The reconnaissance report was certified to be in accordance with policy in March 1999. Available funding is being used to reimburse the HCFCD for the Federal share of the costs for completion of the reconnaissance report upon execution of the Feasibility Cost Sharing Agreement, and for Corps of Engineers' coordination expenses. The funds requested for FY 2002 will also be used for Corps of Engineers' coordination expenses, and to reimburse the HCFCD for the Federal share of feasibility studies upon completion and approval of the feasibility report. The preliminary estimated cost of the feasibility phase is \$3,040,000, which is to be shared on a 50-50 basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Buffalo Bayou and Tributaries
(White Oak Bayou) (continued)

Total Estimated Study Cost	\$ 3,190,000
Reconnaissance Phase (Federal)	\$ 150,000
Feasibility Phase (Federal)	\$ 1,520,000
Feasibility Phase (non-Federal)	\$ 1,520,000

The reconnaissance phase of the study was completed in March 1999. The feasibility study completion is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Freeport Hurricane Protection Levee	4,380,000	0	75,000	100,000	4,205,000
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Freeport is located in the southern part of Brazoria County on the Gulf of Mexico at the mouth of the Brazos River, about 43 miles southwest of Galveston, Texas. The project provides for hurricane-flood protection for a highly industrialized area and community of about 39,000 persons. Major features of project consist of improvements to 42.8 miles of existing levees, two interior drainage-pumping plants and 2.1 miles of new levee. The project was completed in February 1982 at a cost of \$29,311,000 Federal (Corps) and non-Federal \$12,562,000.

Freeport is part of the nine-city Brazosport area, and is the center of a highly industrialized complex, which includes petrochemical and other plants. It is also a deepwater port with related industries and a population of approximately 13,200 people. The project consists of a system of levees and pumping stations that protect about 42 square miles. The request for the study was precipitated by a recent risk analysis study funded by the Dow Chemical Company. The request cites 6 major changes that have occurred since the original Corps study was completed in 1958: (1) industrial and residential property values have significantly increased, possibly 10 to 100 fold; (2) there has been a significant advancement in computer and modeling technology; (3) there is approximately an additional 40 years of actual hurricane data and analysis available; (4) the Brazos River Harbor and Navigation District and Corps' harbor dredging projects have significantly reduced the ponding area and capacity outlined in the 1958 study; (5) the Drainage District has added significant pumping capacity (3,000,000 gallons per minute) relative to the original constructed project; and (6) possible increased subsidence in the local coastal plain. The study was proposed because of higher flood plain elevations from hurricanes, tropical storms, and related events predicted by the Flood Insurance Administration (FIA) in the Freeport Area.

Damages could exceed \$100,000,000 if the current levees are overtopped. An initial appraisal was prepared to evaluate the Federal interest in pursuing a reconnaissance study to determine the adequacy of the hurricane flood protection levee at Freeport. The initial appraisal verified the validity of reviewing the current project in light of current flood levels projected by the FIA. The Sponsor for the project is the Velasco Drainage District. The FCSA is scheduled for execution in March 2002.

Fiscal Year 2001 funds are being used to initiate the reconnaissance phase of the study at full Federal Expense. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year 2002 will be used to continue into the feasibility phase of the study. The feasibility study will assess the engineering, economic, and environmental components of modifying the levees and pump capabilities. Work will include hurricane surge analysis, wave runup analysis, surveys, hydraulic analysis, and benefit determinations. The preliminary estimated cost of the feasibility phase is \$8,560,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Freeport Hurricane Protection Levee (continued)

Total Estimated Study Cost	\$ 8,660,000
Reconnaissance Phase (Federal)	\$ 100,000
Feasibility Phase (Federal)	\$ 4,280,000
Feasibility Phase (Non-Federal)	\$ 4,280,000

The reconnaissance phase is scheduled for completion in March 2002. The completion date for the feasibility phase of the study is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Upper Trinity River Basin	9,310,000	6,765,000	974,000	650,000	921,000
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The Upper Trinity River basin extends upstream from the confluence of the East Fork and the mainstem of the Trinity River, and has a drainage area of approximately 8,100 square miles and includes the Dallas-Fort Worth, Texas, Metroplex. This area had an estimated 1998 population of over 4.1 million. Urban development of the Metroplex has greatly exceeded original expectations. In turn, the magnitude of storm runoff has increased beyond the original values used in design of these existing floodways projects; and thus reducing their effectiveness. Further, future development trends within the Dallas-Fort Worth Metroplex stand to further worsen existing flooding potential. It is estimated that in the event of the Standard Project Flood, approximately 87,700 acres of flood plain properties within the Dallas-Fort Worth Metroplex would be inundated, resulting in an estimated \$14.0 billion in damages. Major floods occurred May-June 1989 and in April-May 1990. In the April-May 1990 floods, over \$300 million in flood damages occurred and three lives were lost. Flooding during January 1992 resulted in 9 deaths, over 200 homes and 12 businesses inundated, and millions of dollars in damages. Existing flood control projects in the Upper Trinity River Basin prevented a total estimated \$318 million in damages in 1989 and \$4 billion in 1990. In 1990, all of the Corps lakes in the Upper Trinity River Basin were either close to the top of, or overflowing the spillway. The North Central Texas Council of Governments is the local sponsor representing nine communities, three counties, and the Tarrant Regional Water District. Study efforts have been directed to addressing improvements in the interest of flood protection, environmental restoration, water quality, recreation, and other allied purposes in the Upper Trinity River Basin with specific attention on the Dallas-Fort Worth Metroplex. Phase I of this two-phase feasibility study was completed in February 1995, which established base conditions. Preliminary plan identification completed during Phase I for flood control, environmental, and recreational projects identified 88 potential measures, which are economically viable.

The results of these analyses were compiled into an Information Paper that was formally released to the public on 6 February 1995.

The Information Paper served as the basis for gaining sponsor commitments for undertaking more detailed studies of potential projects. To date, Project Study Plans (PSP)/Project Management Plans (PMP) that establish specific project and specific study cost sharing have been developed for the Dallas Floodway and Stemmons North Industrial Corridor, Texas; Johnson Creek, Arlington, Texas; Fort Worth Sumps, Clear/West Fork Environmental Restoration, Fort Worth, Texas, and Big Fossil Watershed, Texas. The Johnson Creek, Arlington, Texas Interim Feasibility Report was finalized in March 1999. The Dallas Floodway and Stemmons North Industrial Corridor, Texas, draft Interim Feasibility Report is scheduled for completion in September 2002. The Clear/West Forks Interim Feasibility Study was initiated in September 2000. The Big Fossil Watershed Interim Feasibility Study was initiated in February 2001. Additional Project Management Plans will be formalized prior to initiation of the feasibility studies for other potential projects where local sponsor interest prevails.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Upper Trinity River Basin (continued)

The funds requested for Fiscal Year 2002 will be used to continue the feasibility phase of the Dallas Floodway and Stemmons North Industrial Corridor Interim Feasibility Study, the multi-purpose reevaluation of the Clear and West Forks and Big Fossil Watershed. The Feasibility Cost Sharing Agreement, as modified totals \$17 million, which is being shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 17,810,000
Reconnaissance Phase (Federal)	\$ 810,000
Feasibility Phase (Federal)	\$ 8,500,000
Feasibility Phase (non-Federal)	\$ 8,500,000

The reconnaissance phase was completed in August 1990. As each study is completed, interim feasibility reports will be issued. The final Dallas Floodway and Stemmons North Industrial Corridor Interim Feasibility Report is scheduled for completion in September 2002. The completion date for the overall feasibility study is being determined.

SUBTOTAL FLOOD DAMAGE

PREVENTION STUDIES	16,490,000	7,377,000	1,225,000	1,274,000	6,614,000
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c. Shoreline Protection Studies: None.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

d. Special Studies: The amount of \$2,426,000 is requested for Fiscal Year 2002 for continuation of eight studies.

Kansas

Walnut and White River Watersheds	545,000	86,000	100,000	200,000	159,000
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The Walnut River Basin is a tributary of the Arkansas River and is located in south central Kansas. The Walnut River Basin includes the Whitewater and Little Walnut Rivers. The basin has a drainage area of approximately 1,955 square miles and encompasses portions of Butler, Cowley, Sedgewick, and Greenwood Counties. The economy of the area is based chiefly on agriculture, manufacturing, and wholesale and retail sales and mineral industries consisting primarily of petroleum and natural gas. Over 100,000 acres along the Walnut River and its tributaries are subject to serious flood damages. Flooding occurs annually on the main stem and major tributaries. The maximum flood of record on Walnut River at Winfield occurred on April 23, 1944, with a peak discharge of 105,000 cubic feet per second, a gage height of 38.3 feet and a total volume of 382,600 acre-feet during the period of April 20-28, 1944. Major floods pose threats to the cities of El Dorado, Augusta, Winfield, Arkansas City and smaller communities. Although ongoing projects in Winfield, Arkansas City, and a study in Augusta may result in decreased flood damages in protected areas, flooding in unprotected areas remains a significant problem. The basin recently experienced significant rural and urban flooding in October and November of 1998, in which damages were estimate at \$28.4 million. The four counties were subsequently designated by Federal Emergency Management Agency as Federal Disaster Areas. Levee failure in the cities of Augusta and Arkansas City caused major damage though the majority of the overall flood damage occurred in the uncontrolled areas in the upper reaches of the basin. A reevaluation of the authorized Douglass Lake project on Little Walnut River was completed in 1988 and indicated that the project was marginally economically justified; however, changed basin conditions may warrant a restudy of the Douglass Lake project. In meetings held in January 1999 with the Kansas Water Office, they indicated intent to share equally in the feasibility phase cost that may follow the reconnaissance study. Fiscal Year 2001 funds are being used to fully fund the reconnaissance phase at full Federal expense. Fiscal Year 2001 funds will also be used to continue into the feasibility phase of the study. Funds requested for Fiscal Year 2002 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is \$990,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 990,000
Reconnaissance Phase (Federal)	\$ 100,000
Feasibility Phase (Federal)	\$ 445,000
Feasibility Phase (Non-Federal)	\$ 445,000

The reconnaissance phase is scheduled for completion in May 2001. Completion of the feasibility phase is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Oklahoma

Cimarron River and Tributaries	2,620,000	96,000	124,000	226,000	2,174,000
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The study area consists of the Cimarron River Basin, primarily a large portion of northwestern Oklahoma, and an equally large portion of southwestern Kansas. The basin also extends into Colorado and New Mexico. The river is about 600 miles long and drains an area of 18,600 square miles. The basin has benefited from various Federal programs spanning nearly a century, but those programs have left environmental scars that are becoming more evident as upstream reservoirs near the end of their evaluated life, as habitat becomes critically scarce throughout the watershed. Prior to the Farm Bill of 1985, wetland "recovery" along the Cimarron in Oklahoma for agricultural production was Federally subsidized. This resulted in the loss of thousands of acres of wetland habitat. Over 50 small Federal reservoirs were constructed in the basin for the retention of sediments and flood storage. The past negative impact of the small reservoirs was the loss of about 1,800 acres of riparian, upland, and grassland habitat. Construction of Keystone Lake in 1964, caused the loss of about 3,500 acres of bottom land hardwoods and 9,000 acres of total habitat along the Cimarron River arm of the Lake. That habitat loss significantly impacted the Interior Least Tern by inundating over 25 river miles of nesting habitat. A 1970 Corps of Engineers study of the Cimarron River basin indicated significant flood problems and a high level of local interest in finding solutions. The frequency of major flooding varies for about once in 5 years in the upper basin to once in 11 years in the lower basin. Minor floods occur about once every 2 years. The record flood in 1986 caused \$23 million in damages. There are no major flood control projects in the Cimarron River Basin upstream of Keystone Dam. Average annual flood damages in the basin are estimated to be \$5.5 million. Urban flood damages occur at Stillwater, Guthrie, Dover, Kingfisher, Coyle, Dacoma, Aline, Drumright, and Waynoka, Oklahoma. Environmental restoration efforts would improve the quality of the environment in the public interest. These efforts could include development of plans to halt erosion or control sediment, or plans to manage water resources and associated wetlands and riparian areas. Fiscal Year 2001 funds are being used to fully fund the reconnaissance phase at full Federal expense. Fiscal Year 2001 funds will also be used to continue into the feasibility phase of the study. Funds requested for Fiscal Year 2002 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is \$5,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 5,120,000
Reconnaissance Phase (Federal)	\$ 120,000
Feasibility Phase (Federal)	\$ 2,500,000
Feasibility Phase (Non-Federal)	\$ 2,500,000

The reconnaissance phase of the study is scheduled to be completed in June 2001. The completion dates for the overall feasibility study, and the interim feasibility studies for the Kingfisher Creek and Turkey Creek are being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Oklahoma (continued)

Southeast Oklahoma Water Resource Study	2,900,000	86,000	250,000	200,000	2,364,000
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The study would evaluate the water resources of the 26 county study area, including the Kiamichi River Basin and other tributaries of the Red River, and develop a basin wide watershed plan which will best utilize both the currently available and potential future water resources for multipurpose uses. The state of Oklahoma considers development of a comprehensive plan, which will allow these resources to be best conserved and utilized vital to Oklahoma's future. The study would assist state water resource planners in identifying the best plans for the study area communities and rural areas to prepare for the future.

Fiscal Year 2001 funds are being used to fully fund the reconnaissance phase at full Federal expense. Fiscal Year 2001 funds will also be used to continue into the feasibility phase of the study. Funds requested for Fiscal Year 2002 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is \$5,600,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 5,700,000
Reconnaissance Phase (Federal)	\$ 100,000
Feasibility Phase (Federal)	\$ 2,800,000
Feasibility Phase (Non-Federal)	\$ 2,800,000

The reconnaissance phase is scheduled for completion in April 2001. The completion date for the feasibility phase of the study is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas

Guadalupe and San Antonio Rivers	2,600,000	289,000	211,000	200,000	1,900,000
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The study area includes the Guadalupe and San Antonio River Basins. It is located in south central Texas, extending approximately 110 miles southeasterly from the headwaters in Kerr and Bandera Counties, to the terminus at the Gulf of Mexico in Refugio and Calhoun Counties. The Guadalupe Basin has a drainage area of 3,430 square miles, and the San Antonio River Basin has 3,096 square miles at this location. Construction of Canyon Lake and the San Antonio Channel Improvement project have been completed. Flooding within various portions of the basin was severe in 1972, and in 1978 when portions of the river basins were declared disaster areas. Flooding again plagued the area in 1997, with total damages estimated at \$1.9 million. In October 1998, the largest of all recent flood events within the region accounted for at least 31 deaths, and caused damages estimated to be \$300 million. Many communities experienced inundation at rooftop levels, with water velocities great enough to completely demolish brick homes. The study consists of an investigation of the Guadalupe and San Antonio River Basins to address improvements in the interest of flood damage reduction, environmental restoration and protection, water quality, water supply, and other allied purposes. Both structural and nonstructural solutions will be investigated to reduce flood damages while addressing the environmental needs of the watershed. The proposed study is supported by the Guadalupe-Blanco River Authority, San Antonio River Authority, and the San Antonio Water System, which would act as the local sponsors and are willing to share in the feasibility phase cost that may follow the reconnaissance study.

Fiscal Year 2001 funds are being used to complete the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, Fiscal Year 2002 funds will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is \$4,200,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 4,700,000
Reconnaissance Phase (Federal)	\$ 500,000
Feasibility Phase (Federal)	\$ 2,100,000
Feasibility Phase (non-Federal)	\$ 2,100,000

The reconnaissance phase is scheduled for completion in July 2001. The overall feasibility study completion date is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Lower Colorado River	10,395,000	514,000	1,125,000	950,000	7,806,000
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The Lower Colorado River basin encompasses a geographic area of approximately 21,000 square miles, and includes portions of the following counties in Central and South Texas: Bastrop, Blanco, Burnet, Colorado, Fayette, Hays, Lampasas, Llano, Matagorda, San Saba, Travis, and Wharton. The northernmost reaches of the study area include the Highland Lakes upstream of Austin, while the southernmost boundary is the Gulf of Mexico. The Guadalupe, Lacava, and Colorado-Lavaca basins bound the study area on the west, and the Brazos and Brazos-Colorado basins on the east. The major Texas metropolitan areas within the study boundaries are Austin, Bastrop, Bay City, Columbus, LaGrange, Marble Falls, and Wharton. In October 1998, widespread flooding and related damages occurred throughout the Lower Colorado River Basin. A major component of the basin is the Onion Creek watershed, which originates in Blanco County, continues through Hays County, and then into Travis County, where the creek flows into the Colorado River. The Onion Creek study area is located in the Colorado River Basin, and within the rapid growing urban area of Austin, Texas. Onion Creek is the largest creek in the Austin area with a drainage area of 343 square miles, collecting flows from Williamson, Slaughter, Bear, Little Bear, Rinard, South Boggy, Marble and Cottonmouth Creeks and their tributaries. The creek has a long history of flooding dating back to 1869 and most recently in 1981, 1991 and 1998. Ten flood events have occurred since the turn of the century, resulting in extensive flood damages and the loss of seven lives. Flows in excess of the 100-year (one percent chance) event have occurred on two separate occasions, while the 50-year (two percent chance) event has occurred on two other occasions. The reconnaissance study of the Lower Colorado Basin identified several areas that have experienced severe flooding and present a very high risk for flooding catastrophe. In addition to Onion Creek, Shoal and Walnut Creeks, the Highland Lakes, and the city of Wharton have experienced increased flooding and alteration of wildlife habitats. Initially, a cost-shared basin-wide feasibility study will identify the problems, needs, and opportunities of the Lower Colorado River basin and focus on identifying problem areas where potentially viable implementation measures exist and a cost-sharing sponsor is available to cost-share interim feasibility studies. An interim feasibility study of Onion Creek is being conducted concurrently with the basin-wide study.

Interim studies for Shoal and Walnut Creeks, the Highland Lakes, and the city of Wharton will be initiated upon successful negotiation of modifications to the Feasibility Cost Sharing Agreement (FCSA). The Lower Colorado River Authority is the local sponsor for the feasibility study and will act on behalf of the cities of Austin and Wharton, Travis County, and other entities identified during the problem identification stage of basin-wide feasibility studies.

Fiscal Year 2001 funds are being used to continue the basin-wide cost shared feasibility phase of the study and a concurrent interim study for Onion Creek. The preliminary estimated cost of the overall feasibility phase is \$20,540,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Fiscal Year 2002 funds will be used to continue the basin-wide feasibility study and the Onion Creek interim feasibility study. A summary of study cost sharing is as follows:

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Lower Colorado River (continued)

Total Estimated Study Cost	\$ 20,665,000
Reconnaissance Phase (Federal)	\$ 125,000
Feasibility Phase (Federal)	\$ 10,270,000
Feasibility Phase (non-Federal)	\$ 10,270,000

The interim feasibility study for Onion Creek completion date is being determined. Completion date of the basin-wide feasibility study is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Middle Brazos River	1,540,000	662,000	164,000	100,000	614,000
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The study area is located within the middle portion of the Brazos River Basin, which is bounded on the northwest by the Clear Fork of the Brazos River and on the southeast by Yegua Creek, and includes all or part of 32 counties. The study area includes 19 Federal and non-Federal reservoirs. Urbanization and concurrent changes in land use to support the human environment have caused many changes in the ecological character of the Middle Brazos River Basin, and have resulted in significant adverse impacts on the natural environment. The reconnaissance study included three major sub-basins; the North Bosque, Leon and the Lampasas. The North Bosque sub-basin is the most impacted of the three at present. A trends analysis conducted during this study indicated that if the environmental conditions continue as they have for 30 years, the quality of the environment will continue to degrade in the future. Consequently, the North Bosque River has been placed on the 1998 Clean Water Act Section 303(d) list by the Environmental Protection Agency. The purpose of this study is to develop, evaluate and recommend plans for ecosystem restoration and water quality improvements. Downstream environmental damages occurred partially as a result of floodwater releases from both Federal and non-Federal reservoirs throughout the three major sub-basins in the Middle Brazos River watershed. These damages included destruction of wetlands along the river. In addition, sediment from erosion of riverbanks and loss of environmental habitats at the upstream reaches of existing Federal and non-Federal reservoirs resulted in a decrease in water quality. Potential solutions include possible ecosystem restoration projects in areas of all existing lakes in the Middle Brazos River Basin. Work to be performed consists of feasibility level studies to investigate alternatives to re-establish aquatic, wildlife and vegetative habitats. Projects identified in the reconnaissance phase include the use of conservation easements, riparian corridor restoration, hydraulic meadows, off-channel wetlands and combinations of these alternatives. The Brazos River Authority and the city of Waco, Texas support the proposed study. The Brazos River Authority signed the Feasibility Cost Sharing Agreement on 30 September 1999. Fiscal Year 2001 funds are being used to continue the North Bosque Interim Feasibility Study and investigate other potential studies within the basin. Fiscal Year 2002 funds will be used to complete the North Bosque Interim Feasibility Study and continue the overall feasibility study. The preliminary estimated cost of the feasibility phase is \$2,060,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 2,570,000
Reconnaissance Phase (Federal)	\$ 510,000
Feasibility Phase (Federal)	\$ 1,030,000
Feasibility Phase (Non-Federal)	\$ 1,030,000

The North Bosque River Interim Feasibility Study is scheduled for completion in February 2002. The overall Middle Brazos River Feasibility Study completion date is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Resacas at Brownsville	2,650,000	0	75,000	100,000	2,475,000
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The study area is located in the City of Brownsville along the Rio Grande River in South Texas. The city is requesting a study of the resacas of the Rio Grande. Resacas are small lakes and reservoirs formed from the meandering of the Rio Grande, and are capable of providing a certain level of flood protection for the city (similar to detention reservoirs). During the past ten years, siltation and plant growth have reduced the capacity of the resacas, and the city would like to investigate economical ways of restoring and preserving the resacas as natural, low-cost, effective flood protection. In addition, noxious weeds, such as hydrilla and water hyacinth, are jeopardizing the only surface water supply for the city. Along with the Rio Grande, the City's resacas are the last vestige of usable surface water for the area. The resacas become more valuable as time passes given the unpredictable nature of the contaminated Rio Grande and the continuing drought conditions that have impacted all of South Texas. The study effort will evaluate the environmental restoration of the resacas, improved flood protection, and enhanced water storage. This study will be closely coordinated with the stakeholder members of the Consortium of the Rio Grande (CoRio) as part of the American Heritage Rivers Initiative. The Local Sponsor for the project is the City of Brownsville, who has indicated intent to share equally in the feasibility phase cost that would follow a successful reconnaissance study. The FCSA is scheduled for execution in February 2002.

Fiscal Year 2001 funds are being used to initiate the reconnaissance phase of the study at full Federal expense. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year 2002 will be used to continue into the feasibility phase of the study. The feasibility study will assess the engineering, economic, and environmental components of restoring the resacas. Work will include surveys, hydraulic analysis, water and sediment quality surveys, and benefit determinations. The preliminary estimated cost of the feasibility phase is \$5,100,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$ 5,200,000
Reconnaissance Phase (Federal)	\$ 100,000
Feasibility Phase (Federal)	\$ 2,550,000
Feasibility Phase (Non-Federal)	\$ 2,550,000

The reconnaissance phase is scheduled for completion in February 2002. The completion date for the feasibility phase of the study is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Sabine Pass to Galveston Bay	4,850,000	61,000	85,000	450,000	4,254,000
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The study area consists of approximately 92 miles of Gulf of Mexico shoreline in Jefferson, Chambers, and Galveston Counties along the upper Texas coast from Sabine Pass to San Luis Pass at the western end of Galveston Island. The major problems identified in the reach to the north of Galveston Bay are potential destruction of nationally significant wetlands; loss of land; damage to homes and commercial property; and significant damage to State Highway 87, caused by shoreline erosion. Interest has been expressed in a project to stabilize the shoreline and thus protect nationally significant wetlands and other resources immediately behind and protected by the beach. The area traverses 12 miles of the 81,700-acre McFaddin Marsh National Wildlife Refuge and approximately 2-1/2 miles of the 15,100-acre Sea Rim State Park. Sea Rim State Park is located in the easterly portion of the study area, approximately 10 miles west of Sabine Pass with McFaddin Marsh Refuge immediately to the west.

Along the Galveston Island, Texas reach of the study area, erosion rates in excess of 8 feet per year are occurring beyond the limits of the seawall in Galveston, Texas. This erosion, if continued, will result in land losses, as well as, damages to a multi-owner condominium complex. It has been demonstrated that an economically feasible project could be developed as a result of studies completed in the mid- 1980's for a Galveston Island Beach Erosion Study. In the entire study area, over 200 houses and up to 40,000 people are affected by the shore erosion; some catastrophically. A number of alternatives have been proposed, including beach nourishment and stone protection.

The potential local Sponsors for the project are the State of Texas, General Land Office of Texas, Galveston County, and Jefferson County. Galveston County has provided a Letter of Intent to enter into negotiations for the feasibility phase. A Feasibility Cost Sharing Agreement is scheduled for execution in March 2001.

Fiscal Year 2001 funds are being used to complete the reconnaissance phase of the study. If the reconnaissance report is certified to be in accord with policy, Fiscal Year 2001 funds will also be used to continue into the feasibility phase of the study. Funds requested in Fiscal Year 2002 will be used to continue the feasibility phase of the studies. The preliminary estimated cost of the feasibility phase is \$9,500,000, which will be shared on a 50-50 percent basis by the Federal and non-Federal interests. A summary of the study cost sharing is as follows:

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Sabine Pass to Galveston Bay (continued)

Total Estimated Study Cost	\$ 9,600,000
Reconnaissance Phase (Federal)	\$ 100,000
Feasibility Phase (Federal)	\$ 4,750,000
Feasibility Phase (non-Federal)	\$ 4,750,000

The completion date for the feasibility phase of the study is being determined.

SUBTOTAL SPECIAL STUDIES

28,100,000	1,794,000	2,134,000	2,426,000	21,746,000
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e. Comprehensive Studies: None.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

f. Project Review Studies: The amount of \$1,410,000 is requested in Fiscal Year 2002 for continuation of two studies.

Texas

Gulf Intracoastal Waterway - Brazos River to Port O'Connor	4,710,000	2,368,000	475,000	810,000	1,057,000
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The study area includes approximately 72 miles of the Gulf Intracoastal Waterway (GIWW) in Brazoria, Matagorda and Calhoun Counties, from the Brazos River near Freeport to Port O'Connor, Texas. Tonnage transported along this section of the GIWW totaled nearly 16 million tons in 1994, with petrochemicals as the major commodity shipped. This study will evaluate operational problems along this reach of the GIWW. Problems identified by users along this reach include difficulties navigating currents encountered as a result of river flows from the San Bernard River; shoaling in the open bay to landlocked transition area in Matagorda Bay; bank erosion and loss of wetlands; and deficiencies in mooring facilities and channel markers. One possible solution to reduce navigation operational difficulties would be to relocate the channel across portions of Matagorda Bay. Solutions to other problems identified will be developed during the study. Possible modifications to the existing Environmental Impact Statement and development of long term dredged material plans will be addressed independently using Operation and Maintenance, General appropriations. The State of Texas is the non-Federal sponsor of the GIWW and continues to maintain a high interest in the waterway because of the economic importance of the waterway to the State and their responsibility to provide dredged material disposal areas. The GIWW is designated as part of the Nation's Inland Waterway System and qualifies for 50-50 cost sharing from the Inland Waterways Trust Fund for construction purposes. An initial appraisal of the entire 423-mile Texas Section of the GIWW was completed in November 1989.

Gulf Intracoastal Waterway Users have identified safety issues at the Matagorda Ship Channel crossing due to high shoaling rates and tidal currents. In order to expedite identifying a viable solution to the these issues, the Matagorda Bay reach will be studied separately as an interim to the overall feasibility study. No feasibility cost sharing agreement is required, and all study costs are 100 percent Federal.

Fiscal Year 2001 funds will be used to continue the feasibility study. Fiscal Year 2002 activities will include detailed assessments of project and environmental problems, needs, and opportunities. The reconnaissance phase was completed in August 1998. The GIWW-Matagorda Bay Interim Feasibility Study is scheduled to be completed in June 2001.

The completion date for the overall feasibility study is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Gulf Intracoastal Waterway - Port O'Connor to Corpus Christi Bay	4,660,000	1,484,000	519,000	600,000	2,057,000
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The study area includes approximately 79 miles of the Texas section of the main channel of the Gulf Intracoastal Waterway (GIWW), extending from Port O'Connor to the Kennedy Causeway at Corpus Christi Bay. Tonnage transported along this section of the GIWW totaled nearly 16 million tons in 1994. The purpose of this study is to evaluate operational problems and address environmental concerns along this reach of the waterway. Thirty-one (31) miles of this reach of the waterway are within the critical habitat of the endangered whooping crane. This segment has been addressed under a separate feasibility study for the Aransas National Wildlife Refuge, and is therefore, excluded from consideration for the subject study reach. Navigational difficulties caused by frequent shoaling at various locations within the remainder of this reach, traffic congestion near Port O'Connor, and the lack of navigational aids and mooring facilities have been previously identified by users as areas of concern. The State of Texas is the local sponsor of the GIWW and continues to maintain a high interest in the waterway because of the economic importance of the waterway to the State and their responsibility to provide dredged material disposal areas. The GIWW is designated as part of the Nation's Inland Waterway system and therefore, qualifies for 50-50 cost sharing from the Inland Waterways Trust Fund for construction of navigation improvements. Any potential environmental restoration projects identified by this study will require a cost sharing sponsor. Potential structural solutions may involve channel rerouting across Corpus Christi Bay, widening to relieve traffic congestion at Port O'Connor and Victoria Wye, stabilizing of banks in critical locations to relieve channel shoaling problems, and the coordination and locating mooring facilities for holding vessels during inclement conditions. Other solutions may include restoration of areas previously impacted by project construction or subsequent maintenance activities, restoration of wetland habitat lost as a result of project usage, and dredging of circulation channels between designated dredged material disposal areas.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Gulf Intracoastal Waterway -

Port O'Connor to Corpus Christi Bay (continued)

Fiscal Year 2001 funds are being used to complete water and sediment quality, cultural, and HTRW studies. Real estate, environmental, cumulative impact, and geographical information systems will continue. Fiscal Year 2002 funds will be used to begin design details, plan selection and construction costs, and prepare the draft environmental assessment. The reconnaissance phase was completed in June 1998. No feasibility cost sharing agreement is required, and all study costs are 100 percent Federal. The completion date for the feasibility phase of the study is being determined.

SUBTOTAL PROJECT REVIEW STUDIES	9,370,000	3,852,000	994,000	1,410,000	3,114,000
TOTAL SURVEYS - CONTINUING	76,286,000	16,427,000	6,908,000	8,310,000	44,641,000
TOTAL SURVEYS	77,136,000	16,427,000	7,545,000	8,523,000	44,641,000

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

3. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) - NEW

a. Environmental: The amount of \$100,000 is requested in Fiscal Year 2002 for initiation of PED activities on one project.

Texas

North Bosque River	307,000	0	0	100,000	207,000
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The North Bosque Watershed is located within the middle portion of the Brazos River Basin, which includes Erath and Bosque Counties. Urbanization and concurrent changes in land use to support the human environment have facilitated many changes in the ecological character of the North Bosque River Basin, and have resulted in significant adverse impacts on the natural environment. A trend analysis indicated that if the environmental conditions continue as they have for 30 years, the quality of the environment will continue to degrade in the future. The North Bosque River Basin has been placed on the 1998 Clean Water Act Section 303(d) list by the Environmental Protection Agency. Downstream environmental damages occurred partially as a result of floodwater runoff from adjacent landowners throughout the basin. This project was developed under the Middle Brazos River Basin Feasibility Study. The Interim Feasibility Study for the North Bosque River, Texas is scheduled to be completed in February 2002. The plan of improvement consists of reforestation, construction of low-water dams, creation of conservation easements and wetland areas for the purpose of ecosystem restoration. Preconstruction Engineering and Design (PED) will ultimately be cost-shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction		Total Estimated Preconstruction	
Engineering and Design Costs	\$ 410,000	Engineering and Design Costs	\$ 410,000
Initial Federal Share	\$ 307,000	Ultimate Federal Share	\$ 267,000
Initial Non-Federal Share	\$ 103,000	Ultimate Non-Federal Share	\$ 143,000

The project is not authorized for construction. The cost sharing for construction of the project will be in accordance with Section 210 of the Water Resources Development Act of 1996. Local interests will be required to provide lands, easements, rights-of-way and borrow and excavated or dredged material disposal areas, modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary in the construction of the project; contribute an additional amount in cash to bring the total non-Federal share of costs to a minimum of 35 percent; and bear all costs of operation, maintenance, repair replacement, and rehabilitation for the project.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

North Bosque River (continued)

Fiscal Year 2002 funds will be used to initiate Preconstruction Engineering and Design. The schedule of completion of Preconstruction Engineering and Design is being determined.

SUBTOTAL NEW ENVIRONMENTAL	307,000	0	0	100,000	207,000
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APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

b. Navigation: The amount of \$540,000 is requested in Fiscal Year 2002 for initiation of PED activities on one project.

Texas

Gulf Intracoastal Waterway - High Island to Brazos River	1,035,000	0	0	540,000	495,000
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This reach of the Gulf Intracoastal Waterway (GIWW) includes approximately 85 miles of channels in Galveston and Brazoria Counties, from High Island, Texas, to the Brazos River. Tonnage transported along this section of the GIWW totaled nearly 50 million tons in 1994, with petrochemicals as the major commodity shipped. Some of the problems identified by users along this reach include difficulties in negotiating two 90-degree bends near High Island; difficulties accessing the Texas City Channel from the GIWW; difficulties negotiating a double "S" curve near Freeport; deficiencies in mooring facilities and channel markers; and developing long range disposal plans. The State of Texas is the non-Federal sponsor of the GIWW and continues to maintain a high interest in the waterway because of their responsibility to provide dredged material disposal areas. The State's interest is evident through monthly meetings of the State-chaired Gulf Intracoastal Waterway Advisory Committee. The GIWW is designated as part of the Nation's Inland Waterway System, and qualifies for 50-50 cost sharing from the Inland Waterways Trust Fund for construction of navigation improvements. An initial appraisal of the entire 423-mile Texas Section of the GIWW was completed in November 1989. The reconnaissance study, completed in February 1995, concluded that modifications to the existing GIWW were economically feasible from reduction in delay benefits. These modifications consisted of bend easing in the High Island area, shoaling reductions at Rollover Bay, turn improvements into the Texas City Channel, Pelican Cut and Galveston Channel moorings, entrance approach changes for the Galveston Causeway Railroad Bridge, and easing/realignment near Freeport. This resulted in an overall benefit/cost ratio in excess of 30 to 1.

Fiscal Year 2001 feasibility study efforts included completion of environmental studies, real estate activities, and plan formulation. The feasibility study was 100 percent Federally funded. In addition to the feasibility study, a long-term Dredged Material Management Plan is being developed concurrently for the High Island to Brazos River reach of the Gulf Intracoastal Waterway using Operations and Maintenance, General funds. The feasibility study will be completed in August 2001.

The project is not yet authorized for construction. Fiscal Year 2002 funds will be used to initiate the Preconstruction Engineering and Design phase of the project. Completion of Preconstruction Engineering and Design is to be determined.

SUBTOTAL NEW NAVIGATION	1,035,000	0	0	540,000	495,000
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APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

c. Flood Control: The amount of \$200,000 is requested in Fiscal Year 2002 for initiation of PED activities on one project.

Arkansas

May Branch, Fort Smith	1,800,000	0	0	200,000	1,600,000
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May Branch lies entirely within the city limits of Fort Smith, Arkansas, which has a population of 73,000; and has a drainage area of 5.3 square miles. May Branch starts as an open channel that flows into a covered conduit storm sewer, which ends at the P Street pumping station, constructed by the Corps in 1948, that has an outlet through the Fort Smith Levee into the Arkansas River. The storm sewer was adequate until the 1930's when urbanization increased the amount of runoff, which routinely exceeds the capacity of the storm sewer. Flood runoff flows overland and ponds behind the levee until it is eventually evacuated. Average annual flood damages in the May Branch Basin are estimated at \$5,840,000. Numerous floods have occurred, most notably during the spring of 1990, when an approximate 5 to 10-year flood event that caused an estimated \$2.5 million in damages inundated 26 commercial and 44 residential units. The purpose of this study is to consider plans to alleviate the flooding, including a by-pass channel, channel widening, pump stations, detention basins, and additional relief openings through the levee. On November 13, 1998, the city of Fort Smith, Arkansas, the local sponsor, signed the Feasibility Cost Sharing Agreement, and has indicated they will cost share the preconstruction engineering and design phase.

PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25% non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design costs	\$2,400,000	Total Estimated Preconstruction Engineering and Design Costs	\$2,400,000
Initial Federal Share	1,800,000	Ultimate Federal Share	1,560,000
Initial Non-Federal Share	600,000	Ultimate Non-Federal Share	840,000

The project is not authorized for construction. The cost sharing for construction of the project will be in accordance with Section 103(a)(2) of the Water Resources Development Act of 1986, as amended. Local interests will be required to provide lands, easements, rights-of-way and borrow and excavated or dredged material disposal areas, modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary in the construction of the project; pay five percent of the costs allocated to flood control in cash during the period of construction; contribute an additional amount in cash or credits to bring the total non-Federal share of costs allocated to structural flood control to a minimum of 35 percent; and bear all costs of operation, maintenance, repair replacement, and rehabilitation of the flood control

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Arkansas (continued)

May Branch, Fort Smith (continued)

facilities.

Fiscal Year 2002 funds will be used to initiate the Preconstruction Engineering and Design phase of the project. Work will consist of preparation of plans and specifications. The completion date for Preconstruction, Engineering and Design is being determined.

SUBTOTAL NEW FLOOD PREVENTION	1,800,000	0	0	200,000	1,600,000
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d. Shoreline Protection: None.

e. Special Studies: None.

SUBTOTAL NEW PED	3,142,000	0	0	840,000	2,302,000
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APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

4. PRECONSTRUCTION ENGINEERING AND DESIGN (PED) - CONTINUING

- a. Environmental: The amount of \$230,000 is requested for Fiscal Year 2002 to continue PED activities on two projects.

Texas

Colonias Along U.S. - Mexico Border	1,905,000	0	45,000	100,000	1,760,000
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Rapid population growth has occurred with little or no wastewater or water supply infrastructure development. Colonias (or barrios) are extremely poor, unincorporated communities located within 100 kilometers of the U.S. - Mexico border. In the colonias water and sewer services are limited. The local utility companies have placed priority on potable water distribution with secondary emphasis on central wastewater collection and treatment. In the colonia, most residents use septic tanks or cesspools for sewage disposal. After many years of use, and with very little sewage disposal regulatory enforcement, septic tanks are failing and causing groundwater contamination or introducing raw sewage directly into the Rio Grande. Without the development of infrastructure, groundwater contamination, health risks, and other environmental, social, and economic problems will continue to increase within the study area. The Corps of Engineers would provide water-related environmental infrastructure planning and technical assistance for these colonias, located within the boundaries of the District, under the authority of Section 219 of the 1992 Water Resources Development Act. All work is done in coordination with the Texas Water Development Board (TWDB) and their Distressed Areas Program. Initial projects identified by the Texas Water Development Board (20 total) are: La Feria; Cameron County Rural Study (I); Cameron County - Valle Hermosa and Valle Escondido (I); and Cameron County Regional (II). The local sponsor for the technical support provided through this program is the State of Texas acting through the Texas Water Development Board (TWDB). The TWDB understands and is willing to cost share technical design activities in accordance with the provisions of Section 219 of the Water Resources Development Act of 1992.

Fiscal Year 2001 funds were used to coordinate with the Texas Water Development Board to define scope of work. Fiscal Year 2002 funds will be used to develop the scope of work and cost estimate, prepare the Environmental Infrastructure Study Agreement, advertise and award the A-E contract, and initiate design. The preliminary estimated cost for providing technical assistance for four colonias is \$2,540,000, which is to be shared on a 75-25 percent basis by Federal and non-Federal interest.

Completion of technical assistance for all projects identified by the Texas Water Development Board is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

North Padre Island, Corpus Christi	1,800,000	320,000	999,000	130,000	351,000
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The project is located along the south central Texas Coast on the Southern portion of Mustang Island. The Reconnaissance Report, completed in December 1998, identified a Federal interest in pursuing feasibility studies for environmental restoration. Additional studies are being conducted to determine the technical and environmental viability of a locally preferred option. The locally preferred option includes creating an opening between the Gulf of Mexico and Corpus Christi Bay, which would extend from the Gulf of Mexico through a jettied entrance, through Mustang Island along the existing Packery Channel, and join the main channel of the Gulf Intracoastal Waterway at mile 553.0. Channel depth and width would be optimized depending on utilization analysis. Packery Channel has historically been an intermittent tidal inlet, but with continuing modifications to Aransas Pass associated with the Corpus Christi Ship Channel, Packery Channel has remained closed over the last 50 years. The locally preferred plan would provide an additional access to the Gulf Intracoastal Waterway and Corpus Christi Bay that is not currently available. Potential users indicate that the entrance would provide safe access to smaller vessels that currently must enter Corpus Christi Bay through the Corpus Christi Ship Channel and must be mixed with larger ocean-going vessels. Additional studies will be conducted to determine the potential ecosystem restoration potentials from added circulation to the upper Laguna Madre and the Southern portion of Corpus Christi Bay. The local sponsor for the project is the City of Corpus Christi, Texas, who, by letter dated 27 March 2000 indicated their plan for financial support of the project. PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at full Federal expense.

Fiscal Year 2001 funds are being utilized to complete the evaluation of the locally designed plan and to initiate efforts to bring the locally designed plan up to Corps criteria, and to complete environmental coordination of the locally designed plan. Fiscal Year 2002 funds will be used to continue the design and environmental efforts for the project. The completion date for Preconstruction Engineering and Design is being determined.

SUBTOTAL CONTINUING ENVIRONMENTAL	3,705,000	320,000	1,044,000	230,000	2,111,000
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APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

b. Navigation: The amount of \$200,000 is requested for Fiscal Year 2002 to continue PED activities on one project.

Texas

Gulf Intracoastal Waterway - Matagorda Bay	1,060,000	0	150,000	200,000	710,000
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This reach of the Gulf Intracoastal Waterway (GIWW) extends from Channel Mile 454 to 473, a distance of about 19 miles. The GIWW leaves the landlocked portion on the eastern side of Matagorda Bay near Mile 454 and turns in a southwesterly direction before turning west and running parallel to Matagorda Peninsula. At Mile 471, the GIWW intersects with the deep-draft Matagorda Ship Channel (MSC). The GIWW enters the landlocked portion again at Port O'Connor near Mile 473.

Historically, shoaling occurs at a rapid rate. Water depths in this area are naturally shallow and numerous oyster reefs characterize the area. The shoaling rate is probably the result of sediment movement by wind and tidal action between Matagorda Bay and West Matagorda Bay. As the GIWW reach between Mile 470 and Mile 472 intersects the MSC. Dredging in this reach occurs almost annually, removing 200,000 - 300,000 cubic yards. The proximity of the GIWW to the natural pass of Pass Cavallo and the construction of the jettied entrance channel and deep-draft MSC has created hazardous navigation. The influences of the natural and man-made channels have created a dangerous crosscurrent at the intersection of the GIWW. To the south of the GIWW is Sundown Island, a National Audubon Society bird sanctuary. To the north is the dredged material placement site for the maintenance dredging operations. This has effectively limited the ability of barge traffic to maneuver to compensate for the crosscurrents and shoaling. Because of the various problems along this reach, the waterways industry has reported that numerous groundings have occurred and that vessels operate under reduced speeds to compensate for these problems. The industry is concerned about the continuing safety problems associated with this reach. As a result, industry has self-imposed one-way traffic in this reach. The most likely alternative continues along the existing alignment from mile 454 to mile 460; at mile 460 a new channel will be dredged in a westerly direction to the North of the existing alignment, generally, paralleling the existing channel approximately 1.5 miles to the North. The realigned channel intersects the Matagorda Ship Channel approximately 1 mile north of the existing alignment. It turns sharply in a southwesterly direction in order to align with the existing GIWW at the Port O' Conner Jetties. The channel from mile 460 to mile 473 would be abandoned.

The proposed project is estimated to cost \$15,000,000. The benefit to cost ratio is 1.6. The Texas Department of Transportation is the local sponsor for the Gulf Intracoastal Waterway and will provide disposal facilities. The GIWW has been designated as part of the inland waterways and therefore the project will be cost shared 50/50 with the Inland Waterways Trust Fund.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Gulf Intracoastal Waterway -
Matagorda Bay (continued)

The project is not authorized for construction. Fiscal Year 2002 funds will be used to initiate the Preconstruction Engineering and Design phase of the project. Work will consist of initiating the plans and specifications. The completion date for Preconstruction, Engineering and Design is being determined.

SUBTOTAL CONTINUING NAVIGATION	1,060,000	0	150,000	200,000	710,000
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APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

c. Flood Control: The amount of \$1,207,000 is requested for Fiscal Year 2002 to continue PED activities on five projects.

Arkansas

Arkansas River Levees	1,900,000	835,000	300,000	187,000	578,000
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The 42 Arkansas River levees in Arkansas protect 753,180 acres of rich alluvial land from flood damages. It is estimated that these levees have prevented more than \$523 million in damages as of September 1994. Many of these levees have equaled or exceeded their economic life and are in need of culvert replacement and/or reconstruction. The Arkansas River Basin, Arkansas and Oklahoma, Feasibility Report, completed in May 1991, lists 14 levee units in Arkansas which were found to be economically justified to be rehabilitated. The report stated that completion of reconstruction of these levees would prevent more than \$3.8 million in damages annually. Failure of these levees would allow flooding in the cities of North Little Rock, Fort Smith, and Van Buren. In North Little Rock, the City Hall, banks, businesses, homes, and the new Alltel Arena would incur major damages. In western Arkansas, three specific areas having flooding problems are residential developments in the Riverlyn community along the right bank of the Arkansas River, flooding in the Van Buren area, and areas of flooding located along the south side of the Arkansas River downstream of Fort Smith where there are no existing Federal flood control levees. Recent flooding along the Arkansas River in the area of Fort Smith occurred in 1986 and 1990, resulting in \$3,270,000 and \$1,720,000 of damages, respectively. The total cost in FY 1991 dollars for construction of the levees is \$4,634,000. Each levee has a separate benefit-to-cost ratio that exceeds 1.06 with the average for all projects of more than 8.0, based on the latest economic analysis dated May 1991. Five levee districts, listed below, have expressed their willingness to participate and understand their requirements to cost-share construction of these levees. The project is authorized for construction under Section 110 of the Water Resources Development Act of 1990. The cost sharing for construction of the project will be in accordance with Section 103(a)(2) of the Water Resources Development Act of 1986. Local interests will be required to provide lands, easements, rights-of-way and borrow and excavated or dredged material disposal areas, modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary in the construction of the project; pay five percent of the costs allocated to flood control in cash during the period of construction; contribute an additional amount in cash or credits to bring the total non-Federal share of costs allocated to structural flood control to a minimum of 25 percent; and bear all costs of operation, repair, replacement, and maintenance of flood control facilities. In Fiscal Year 2001, the Corps will develop a Limited Reevaluation Report to evaluate the levees that were studied in the initial Feasibility Report to determine if there are any changes in needs and priority. Fiscal Year 2002 funds will be used to initiate preparation of the final design and plans and specifications for the following five levee districts: North Little Rock levee and floodwall; Pope County Number 2, Conway County Number 1, Fort Smith Number 1, and Van Buren Number 1. The completion date for Preconstruction Engineering and Design is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Arkansas (continued)

North Little Rock, Dark Hollow	1,800,000	250,000	375,000	400,000	775,000
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The Dark Hollow area is located entirely within the city limits of North Little Rock, Arkansas. The area is comprised of approximately 2,000 acres of residential, commercial, and industrial activities. The residential areas contain about 600 units, which are occupied primarily by lower income families. About two-thirds of the homes are owner occupied. The major flood problem results from lack of an adequate outlet facility. The existing outlet facility, the Redwood Tunnel, has the capacity for carrying runoff from storms only up to a 2-year frequency. In addition, the Redwood Tunnel, which was constructed in the early 1900's, is in poor condition, and the city of North Little Rock fears that failure of the tunnel will occur in the near future. Recent engineering examinations by the city indicate that the tunnel is severely deteriorated. Studies completed in the mid-1980 have identified a Federal interest in proceeding with design for the project. This study will investigate alteration of existing bridges and construction of a new channel outlet to replace the existing Redwood Tunnel, at cost estimated to be approximately \$30 million. The city of North Little Rock understands the cost sharing requirements and has indicated their intent to cost share in the Preconstruction Engineering and Design (PED) phase of the project. The Design Agreement was executed 30 May 2000. PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25% non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	\$2,400,000	Total Estimated Preconstruction Engineering and Design Costs	2,400,000
Initial Federal Share	1,800,000	Ultimate Federal Share	1,560,000
Initial Non-Federal Share	600,000	Ultimate Non-Federal Share	840,000

The project is authorized for construction by the Water Resources Development Act (WRDA) of 1999. The cost sharing for construction of the project will be in accordance with Section 103(a)(2) of the Water Resources Development Act of 1986, as amended. Local interests will be required to provide lands, easements, rights-of-way and borrow and excavated or dredged material disposal areas, modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary in the construction of the project; pay five percent of the costs allocated to flood control in cash during the period of construction; contribute an additional amount in cash or credits to bring the total non-Federal share of costs allocated to structural flood control to a minimum of 35 percent; and bear all costs of operation, maintenance, repair replacement, and rehabilitation of the flood control facilities.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Arkansas (continued)

North Little Rock, Dark Hollow (continued)

Fiscal Year 2001 funds are being utilized to complete the Limited Reevaluation Report to comply with the provisions of Section 576 of the Water Resources Development Act of 1999. Fiscal Year 2002 funds will be used to continue Preconstruction Engineering and Design activities. The completion date for Preconstruction Engineering and Design is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas

Greens Bayou, Houston	6,945,000	6,033,000	535,000	190,000	187,000
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Greens Bayou, excluding its tributary of Halls Bayou, drains about 154 square miles in the north central area of the Buffalo Bayou watershed. The area is subject to rainstorms throughout the year and urban flooding is a common occurrence. About 10,967 homes and businesses are currently subject to flooding by the Standard Project Flood (SPF), and about 7,100 of these properties would be subject to flooding by a 100-year frequency flood. On an average annual basis, stream flooding could cause about \$17,800,000 in damages per year to existing properties. Greens Bayou is one feature of a comprehensive flood control plan for the Buffalo Bayou watershed which has six separate elements providing flood control on Carpenters, Greens, Halls, Hunting, Little White Oak, and Brays Bayous. Plan features for Greens Bayou include 25 miles of channel improvements, 14 miles of selective clearing, acquisition of flood-prone properties, and 4 flood detention basins. The proposed project would provide about 25-year flood protection, and would reduce average annual damages by 91.2 percent. Aesthetic vegetation would be included to improve environmental quality, and mitigation would be required to compensate for the loss of 48 acres of riparian forest fish and wildlife habitat, and for 194 acres of upland forest wildlife habitat. Recreation features incorporated into the plan include trails, picnic facilities, sports fields, canoe launching ramps, comfort stations and parking areas. The total first cost of the recommended plan, based on October 2000 price levels (first cost), is estimated at \$274,120,000, with an estimated Federal cost of \$171,294,000 and an estimated non-Federal cost of \$102,826,000. The average annual benefits are estimated at \$61,722,100 for flood control, and \$1,901,800 for recreation. The benefit-cost ratio is 4.8 to 1 based upon the latest economic analysis dated August 1993 with cost updated to October 2000. The local sponsor for the project is the Harris County Flood Control District (HCFCD), a certified agent of the Harris County Commissioners Court in Texas. The HCFCD is a willing and viable local sponsor, and the cost sharing partner on two major flood control projects, Clear Creek and Sims Bayou, Texas, which are currently under construction.

This project is authorized for construction by the Water Resources Development Act of 1990. The cost sharing for construction of the project will be in accordance with Section 103(a)(2) of the Water Resources Development Act of 1986. Local interests will be required to provide lands, easements, rights-of-way and borrow and excavated or dredged material disposal areas, modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary in the construction of the project; pay five percent of the costs allocated to flood control in cash during the period of construction; contribute an additional amount in cash or credits to bring the total non-federal share of costs allocated to structural flood control to a minimum of 25 percent; and bear all costs of operation, maintenance, repair, replacement, and rehabilitation of the flood control facilities.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Greens Bayou, Houston

Fiscal Year 2001 funds will be used to continue preparation of the General Reevaluation Report. Fiscal Year 2002 funds will be used to complete the General Reevaluation Report and initiate first set of plans and specifications. The completion date for Preconstruction Engineering and Design is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Raymondville Drain	2,450,000	286,000	25,000	50,000	2,089,000
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The Raymondville channel provides a drainage outlet to the Laguna Madre for a large area in eastern Hidalgo and northern Willacy Counties. The flows of floodwaters in the basin are impeded by the relatively flat topography, inadequate drainage structures, irrigation canals that criss-cross the area in every direction and the lack of adequate outlets. Floodwaters inundate large agricultural areas, improved pastures, and urban areas for long periods, resulting in extensive damage to crops, properties, and structures. Floodwaters block transportation arteries causing interruption of economic activities, tourism, school attendance, and utility services and increase the activities of rescue and repair crews. Flooding of sanitation facilities occurs periodically in many communities, contaminating water supplies resulting in health and safety problems to area residents. The area is subject to flooding from long-term accumulations of moderate rainfall as well as from torrential rainfall associated with tropical storms. Hurricane Beulah (1967), one of the largest in the history of the area, dumped more than 30 inches of rain in the Valley and caused approximately \$131,500,000 (1 October 1998 price levels) in damages in Cameron, Hidalgo, and Willacy Counties. The authorized plan will provide improvements by enlarging existing channels, and constructing new channels, a total of 43.8 miles of channel work including a 3.88-mile long levee and diversion channel along the west side of the City to protect it from sheet flow up to the Standard Project Flood. The city of Raymondville would receive flood protection against a 100-year storm. The local sponsor supports the project, and has confirmed by letter dated 12 September 1994 and in January 2000 their willingness to execute a Project Cooperation Agreement. The project costs based on October 1998 price levels, is estimated to be \$107,800,000, with an estimated Federal cost of \$80,850,000 and an estimated non-Federal cost of \$26,950,000. The average annual benefits are estimated at \$20,410,000 of which \$4,011,000 is for drainage, \$2,090,000 are rural flood control and \$13,293,000 are urban flood control. The benefit-cost ratio is 4.5 to 1 based upon the latest economic analysis available with cost updated to October 2000.

This is an element of the Lower Rio Grande Basin project, which was authorized for construction by the Water Resources Development Act of 1986. The cost sharing for construction of the project will be in accordance with Section 103(a)(2) of the Water Resources Development Act of 1986, as amended. Local interests will be required to provide lands, easements, rights-of-way and borrow and excavated or dredged material disposal areas, modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary in the construction of the project; pay five percent of the costs allocated to flood control in cash during the period of construction; contribute an additional amount in cash or credits to bring the total non-federal share of costs allocated to structural flood control to a minimum of 25 percent; and bear all costs of operation, maintenance, repair, replacement, and rehabilitation of the flood control facilities. The project is dependent on implementation of lateral and on-farm drainage improvements to fully realize agricultural benefits and environmental protection. These improvements will be built during the economic life of the project. The on-farm improvements are being provided by continuing private investment.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

Raymondville Drain (continued)

Fiscal Year 2001 funds are being utilized to initiate general reevaluation studies of various alternatives for flood control. Fiscal Year 2002 funds will be used to complete preliminary analysis and develop a recommended plan for the project. The completion date for Preconstruction, Engineering and Design is to being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

South Main Channel	8,710,000	6,915,000	580,000	380,000	835,000
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The South Main Channel is a major feature of the Lower Rio Grande Basin project, a comprehensive flood control-drainage project for the two-county Valley region of Texas. The South Main Channel project is located in Hidalgo and Willacy Counties, Texas. Existing drainage is extremely limited throughout the Lower Rio Grande Basin, and flat topography, roads, railroads, irrigation canals, and inadequate outlets impede runoff. Floodwaters damage homes, businesses, and crops; block transportation; interrupt business, tourism, school attendance, and utility services; and increase rescue and repair activities. Under existing conditions the average annual flood damages are estimated at \$12,237,000 (1 October 1995 prices). The area is subject to flooding from long-term accumulations of moderate rainfall as well as from rainfall associated with tropical storms. Hurricane Beulah (1967), one of the largest in the history of the area, dumped more than 30 inches of rain in the Valley and caused almost \$128,168,000 (1 October 1995 price levels) in damages in Cameron, Hidalgo, and Willacy Counties. Numerous cities and communities and almost 500,000 acres of agricultural land were flooded by the storm. The Water Resources Development Act of 1986 authorized the comprehensive flood control and drainage project for the region. Late in FY99, one of the Local Sponsors, Hidalgo County Drainage District No. 1, withdrew support of the project. Currently, General Reevaluation Studies have been initiated to reformulate the project to meet the needs of the remaining local sponsor, Willacy County Drainage District No. 1. In August 1999, Willacy County Drainage District No. 1 restated their intent to cost share in project construction. The authorized plan for the South Main Channel feature of the project, estimated to cost \$233,470,000 based on October 2000 prices, including inflation, consisted of major outlet improvements which included enlargement of existing channels and construction of new channels totaling 113 miles. The authorized plan would provide flood protection for the cities of McAllen, Edinburg, Edcouch, La Villa and Lyford, as well as the rural areas of Hidalgo and Willacy Counties north of U.S. Highway 83. The average annual benefits for this feature amount to \$17,744,000. The benefit-to-cost ratio is 1.45 to 1 based upon the 1985 Phase I General Design Memorandum with cost updated to October 2000 prices. The General Reevaluation report will be completed in February 2002. Date of assurances were initially received in November 1969 and reaffirmed in December 1980, July 1982, December 1989, and October 1993. The project was authorized for construction by the Water Resources Development Act of 1986. The cost sharing for construction of the project will be in accordance with Section 103(a)(2) of the Water Resources Development Act of 1986 as a separable element of the Lower Rio Grande Basin, Texas project. Local interests will be required to provide lands, easements, rights-of-way and borrow and excavated or dredged material disposal areas, modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary in the construction of the project; pay five percent of the costs allocated to flood control in cash during the period of construction; contribute an additional amount in cash or credits to bring the total non-federal share of costs allocated to structural flood control to a minimum of 25 percent; and bear all costs of operation, maintenance, repair, replacement, and rehabilitation of the flood control facilities.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2002

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2001	Allocation FY 2001	Tentative Allocation FY 2002	Additional To Complete After FY 2002
	\$	\$	\$	\$	\$

Texas (continued)

South Main Channel (continued)

Fiscal Year 2001 funds are being utilized to continue General Reevaluation studies. Fiscal year 2002 funds will be used to complete General Reevaluation Studies, and to initiate plans and specifications. The completion date for Preconstruction Engineering and Design is being determined.

SUBTOTAL CONTINUING FLOOD CONTROL	21,805,000	14,319,000	1,815,000	1,207,000	4,464,000
d. <u>Shoreline Protection</u> : None.					
e. <u>Multiple Purpose</u> : None.					
TOTAL PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) CONTINUING	26,570,000	14,639,000	3,009,000	1,637,000	7,285,000
TOTAL PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED)	29,712,000	14,639,000	3,009,000	2,477,000	9,587,000
GRAND TOTAL - SURVEYS AND PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES	106,848,000	31,066,000	10,554,000	11,000,000	54,228,000

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Channel to Victoria, TX (Continuing)

LOCATION: The project is located in south central Texas within Calhoun and Victoria Counties. The channel extends approximately 35 miles from the Gulf Intracoastal Waterway in San Antonio Bay to a turning basin located approximately seven miles south of the City of Victoria.

DESCRIPTION: The existing 9-foot by 100-foot Channel to Victoria is a tributary channel to the Gulf Intracoastal Waterway (GIWW). The project, authorized by the Water Resources Development Act of 1988, consists of enlarging the 35-mile shallow-draft navigation channel to 12 feet by 125 feet from the GIWW in San Antonio Bay to a 500-foot by 800-foot turning basin near the City of Victoria. The 2.3 million cubic yards of material dredged from the 10-mile bay reach was deposited in two upland disposal areas, one 340 acres in size and the other 265 acres; the 4.3 million cubic yards of material dredged from the landlocked reach will be placed in disposal areas adjacent to the channel. The project also includes upgrading the fender systems at the Highway 35 bridge and the Missouri Pacific Railroad bridge and construction of two weir structures in the vicinity of Green Lake. The local sponsors for the project are the Victoria County Navigation District and the West Side Calhoun County Navigation District.

AUTHORIZATION: Water Resources Development Act of 1988.

REMAINING BENEFIT-REMAINING COST RATIO: 9.4 to 1 at 8 3/4 percent.

TOTAL BENEFIT-COST RATIO: 1.7 to 1 at 8 3/4 percent.

INITIAL BENEFIT-COST RATIO: 1.6 to 1 at 8 3/4 percent (FY 1993)

BASIS OF BENEFIT-COST RATIO: Benefits are based on Reevaluation Report approved at Southwestern Division January 1990, costs as included in the Project Design Memorandum approved by Southwestern Division October 1991, as amended and updated to October 1994 price levels. Benefits were reaffirmed in a Limited Reevaluation Report approved at the ASA (CW) on 18 October 1994.

Division: Southwestern

District: Galveston

Project: Channel to Victoria, Texas

3 April 2001

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SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST FED. COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost (CoE)	\$28,391,000		Entire Project	85	Being Determined
Scheduled Construction					
Estimated Federal Cost (DoT)	422,000				
Scheduled Construction					
Estimated Federal Cost (USCG)	62,000				
Scheduled Construction					
PHYSICAL DATA					
Channels:					
Shallow Draft Channel 12' x 125' x					
35 miles long					
Upland Disposal Areas:					
13 disposal areas with total					
acreage of 1,930					
Estimated Total Federal Cost	\$28,875,000				
Estimated Non-Federal Cost	6,645,000				
Scheduled Construction	\$6,645,000				
Cash Contribution	\$3,155,000				
Other Costs	3,490,000				
Total Estimated Scheduled Construction Cost	\$35,520,000				
Total Estimated Project Cost	35,520,000				
Allocations to 30 September 2000	18,561,000				
Conference Allowance for FY 2001	6,104,000				
Allocation for FY 2001	4,265,000 <u>1/</u>				
Allocations through FY 2001	22,826,000	80%			
Allocation Requested for FY 2002	5,565,000	100%			
Programmed Balance to Complete	0				
Unprogrammed Balance to Complete after FY 2002	0				

1/ Reflects \$977,000 reduction assigned as savings and slippage, \$850,000 reprogrammed from the project, and \$12,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

Division: Southwestern

District: Galveston

Project: Channel to Victoria, Texas

3 April 2001

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JUSTIFICATION: The existing channel is 9 feet deep by 100 feet wide. The channel primarily serves several sand and gravel shippers, and petrochemical plants along the waterway. The waterway currently carries approximately 3.4 million tons per year, and projections indicate that commerce will increase in the future. The proposed plan would create a safer channel for the increased future traffic and increase future development potential along the channel. The additional channel depth will accommodate barge traffic using the Gulf Intracoastal Waterway without light loading or trans-shipment. The average annual benefits are \$5,586,700, all commercial navigation, based on October 1994 price levels.

FISCAL YEAR 2002: The requested amount of \$5,565,000 will be applied as follows:

Complete Dredging Stations 1300+00 to 1841+21	\$5,360,000
Federal Review of Land Acquisition and Relocations	5,000
Planning, Engineering, and Design	40,000
Construction Management	160,000
Total	\$5,565,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments during Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way.	\$3,490,000	\$67,000
Pay 10 percent of the costs allocated to shallow draft navigation, dredged material disposal areas, and mitigation during construction.	3,155,000	
Total Non-Federal Costs	\$6,645,000	\$67,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction. The local sponsor's share of the cost is being financed primarily from the sale of general obligation bonds. A bond issue was passed by voters, 65 percent for and 35 percent against, on 2 October 1993 to finance Victoria County's share of construction costs. The general obligation bonds were sold on 8 March 1994.

Division: Southwestern

District: Galveston

Project: Channel to Victoria, Texas

3 April 2001

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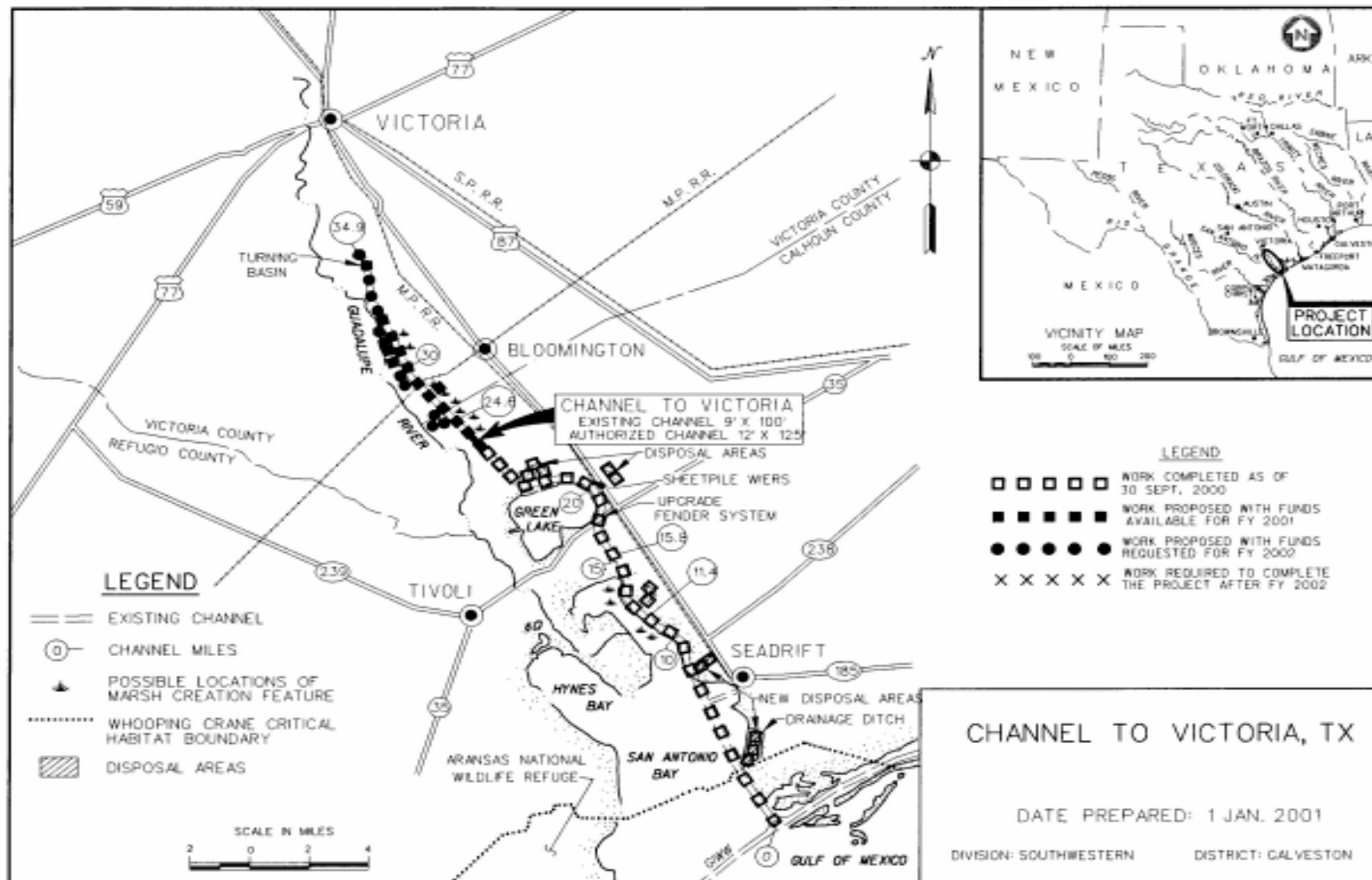
STATUS OF LOCAL COOPERATION: In a Letter of Assurance dated 16 April 1987, the Victoria County Navigation District agreed to cost-share in the project in accordance with the Water Resources Development Act of 1988. A Project Cooperation Agreement (PCA) was executed in November 1994. An amendment to the PCA, which was developed to incorporate new cost-sharing provisions for construction of disposal facilities of Water Resources and Development Act of 1996, was executed 14 December 1997.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps of Engineers) cost estimate (\$28,391,000) is an increase of \$1,013,000 from the latest estimate of \$27,378,000 presented to Congress (FY 2001). This change includes the following items.

Item	Amount
Post Contract Award and Other Estimating Adjustments	\$ 716,000
Price Escalation on Construction Features	297,000
Total	\$1,013,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with Environmental Protection Agency on 15 August 1986. An Environmental Assessment was completed for the new project disposal areas, 20 September 1991.

OTHER INFORMATION: Funds were appropriated to initiate preconstruction engineering and design in Fiscal Year 1989 and funds to initiate construction were appropriated in Fiscal Year 1993.



Division: Southwestern

District: Galveston

Project: Channel to Victoria, Texas

3 April 2001

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APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Houston-Galveston Navigation Channels, TX (Continuing)

LOCATION: The project is located in the Galveston Bay system in Harris and Galveston Counties, Texas.

DESCRIPTION: The total project provides for a 45-foot project by enlarging the Houston Ship Channel to a depth of 45 feet and a width of 530 feet, and the Galveston Channel to a depth of 45 feet over a width which varies between 650 and 1112 feet, and deepening the entrance channel to the Galveston Harbor and Channel to 47 feet over its original 800-foot width and 10.5 mile length, and extending the channel an additional 3.9 miles to the 47-foot bottom contour in the Gulf of Mexico along the existing alignment. Dredged material will be used for construction of environmental restoration sites to include approximately 118 acres of oyster cultch, 4,250 acres of marsh, and 12 acres of bird island.

AUTHORIZATION: Water Resources Development Act (WRDA) of 1996. Energy and Water Development Appropriations Act, 2001, as enacted by Section 1(a)(2) of P.L. 106-377 (Barge Lanes).

REMAINING BENEFIT-COST RATIO: 3.2 to 1 at 7 5/8 percent.

TOTAL BENEFIT-COST RATIO: 1.8 to 1 at 7 5/8 percent. (Authorized Project)

INITIAL BENEFIT-COST RATIO: 1.8 to 1 at 7 5/8 percent. (FY 1996)

BASIS OF BENEFIT-COST RATIO: Benefits and costs are from the Limited Reevaluation Report and Supplemental Environmental Statement approved by HQUSACE in May 1996.

Division: Southwestern

District: Galveston

Project: Houston-Galveston
Navigation Channels, Texas

3 April 2001

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SUMMARIZED FINANCIAL DATA

Estimated Appropriation Requirement (CoE)	475,468,000
Programmed Construction	475,468,000
Unprogrammed Construction	0
Estimated Appropriation Requirement(OFA)	3,786,000
Programmed Construction	3,786,000
Unprogrammed Construction	0
Estimated Appropriation Requirement	479,254,000
Programmed Construction	479,254,000
Unprogrammed Construction	0
Future Non-Federal Reimbursement	29,026,000
Programmed Construction	29,026,000
Unprogrammed Construction	0
Estimated Federal Cost (Ultimate) (CoE)	450,228,000
Programmed Construction	450,228,000
Unprogrammed Construction	0
Estimated Non-Federal Cost	161,546,000
Programmed Construction	161,546,000
Cash Contributions	129,108,000
Other Costs	10,040,000
Credit	22,398,330
Unprogrammed Construction	0
Cash Contributions	0
Other Costs	0
Total Estimated Programmed Construction Cost	640,800,000
Total Estimated Unprogrammed Construction Cost	0
Total Estimated Project Cost	640,800,000

Division: Southwestern

District: Galveston

**Project: Houston-Galveston
Navigation Channels, Texas**

ACCUM. PCT. OF EST FED. COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
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Entire Project	68	Being Determined
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PHYSICAL DATA - Total Project

Channels:

Houston Ship Channel - 39.2 miles
Galveston Channel - 3.8 miles
Galveston Harbor Channel - 14.4 miles
Barge Lanes - 26 miles

Beneficial use of Dredged Material

Oyster Cultch - 118 acres
Marsh - 4,250 acres
Bird Island - 6 acres
Offshore Underwater Berm
Redfish Island - 10 acres

3 April 2001

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SUMMARIZED FINANCIAL DATA (Continued)		ACCUM. PCT. OF EST FED. COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Allocations to 30 September 2000	\$ 121,248,000				
Conference Allowance for FY 2001	53,492,000				
Allocation for FY 2001	38,328,000 <u>1/</u>				
Allocations through FY 2001	159,576,000	34%			
Allocation Requested for FY 2002	28,785,000	40%			
Programmed Balance to Complete after FY 2002	287,107,000 <u>2/</u>				
Unprogrammed Balance to Complete after FY 2002	0				

1/ Reflects \$8,559,000 reduction assigned as savings and slippage, \$6,500,000 reprogrammed from the project, and \$105,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

2/ Includes \$177,788,000 for deferred construction of environmental restoration sites.

JUSTIFICATION: The total project will include environmental restoration and will provide transportation savings from using larger or more efficient vessels, reduction in vessel casualties, and reduction of vessel delays. The average annual benefits for the Houston-Galveston project are \$87,300,000, all commercial navigation, based on October 1994 price levels.

Annual Benefits	Amount
Navigation	\$ 87,300,000
Total	\$ 87,300,000

Division: Southwestern

District: Galveston

Project: Houston-Galveston
Navigation Channels, Texas

3 April 2001

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FISCAL YEAR 2002: Funds in the amount of \$28,785,000 will be used in FY 02 as follows:

Initiate Construction Contract #2 Galveston Channel	1,000,000
Initiate Construction Contract #11 Barge Lanes Mitigation	2,000,000
Initiate Construction Contract #12 Barge Lanes	4,345,000
Continue Construction Contract #5 Mid Bay	5,000,000
Continue Construction Contract #6 Goat Island	6,000,000
Complete Construction Contract #10 Redfish Island	3,000,000
Complete Construction Contract #4 Upper Bay	800,000
Complete Construction Contract #8 Lower Bayou	5,705,000
Federal Review of Land Acquisition	5,000
Cultural Resources	45,000
Planning, Engineering, and Design	200,000
Construction Management	685,000
Total	\$28,785,000

Division: Southwestern

District: Galveston

Project: Houston-Galveston
Navigation Channels, Texas

3 April 2001

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NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	\$ 994,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	54,000	
Pay a percentage of the costs allocated to navigation improvements and to mitigate the project's adverse environmental impacts to bring the total share to 25 percent, and to pay a portion of the cost of operation, maintenance, and replacement of the project.	151,506,000	\$604,000
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 year following completion of construction, as partially reduced by a credit allowed for the value of lands, easements, rights of way, relocations, and dredged or excavated material disposal areas provided for navigation.	27,298,000	
Total Non-Federal Costs	\$179,852,000	\$604,000

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement with the Port of Houston Authority was executed on 10 June 1998. Houston and Harris County voters approved a \$130 million Port of Houston bond issued on 7 November 1989, by a 63 percent to 37 percent margin. The City of Galveston expressed their support for the total project by letters dated January 1987 and 30 October 1995. The Project Cooperation Agreement with the Port of Galveston has been tentatively scheduled for March 2002.

Division: Southwestern

District: Galveston

Project: Houston-Galveston
Navigation Channels, Texas

3 April 2001

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COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate of \$475,468,000 is an increase of \$56,732,000 from the latest estimate (\$418,736,000) presented to Congress (FY 2001). This change includes the following items.

Item	Amount
Post Contract Award and Other Estimating Adjustments	\$10,070,100
Redfish Island	8,250,000
Barge Lanes and Mitigation	29,511,900
Price Escalation on Construction Features	8,900,000
Total	\$ 56,732,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (FEIS) was filed with the Environmental Protection Agency in 25 November 1988. A supplement to the FEIS has been prepared and was listed in the Federal Register on 24 November 1995.

OTHER INFORMATION: The total project as authorized by WRDA 96 included channel deepening of the Galveston Entrance Channel, Galveston Harbor and Channel and the Houston Ship Channel to Boggy Bayou in Houston, Texas.

Funds to initiate preconstruction planning were appropriated in Fiscal Year 1990. Funds to initiate construction were appropriated in Fiscal Year 1998.

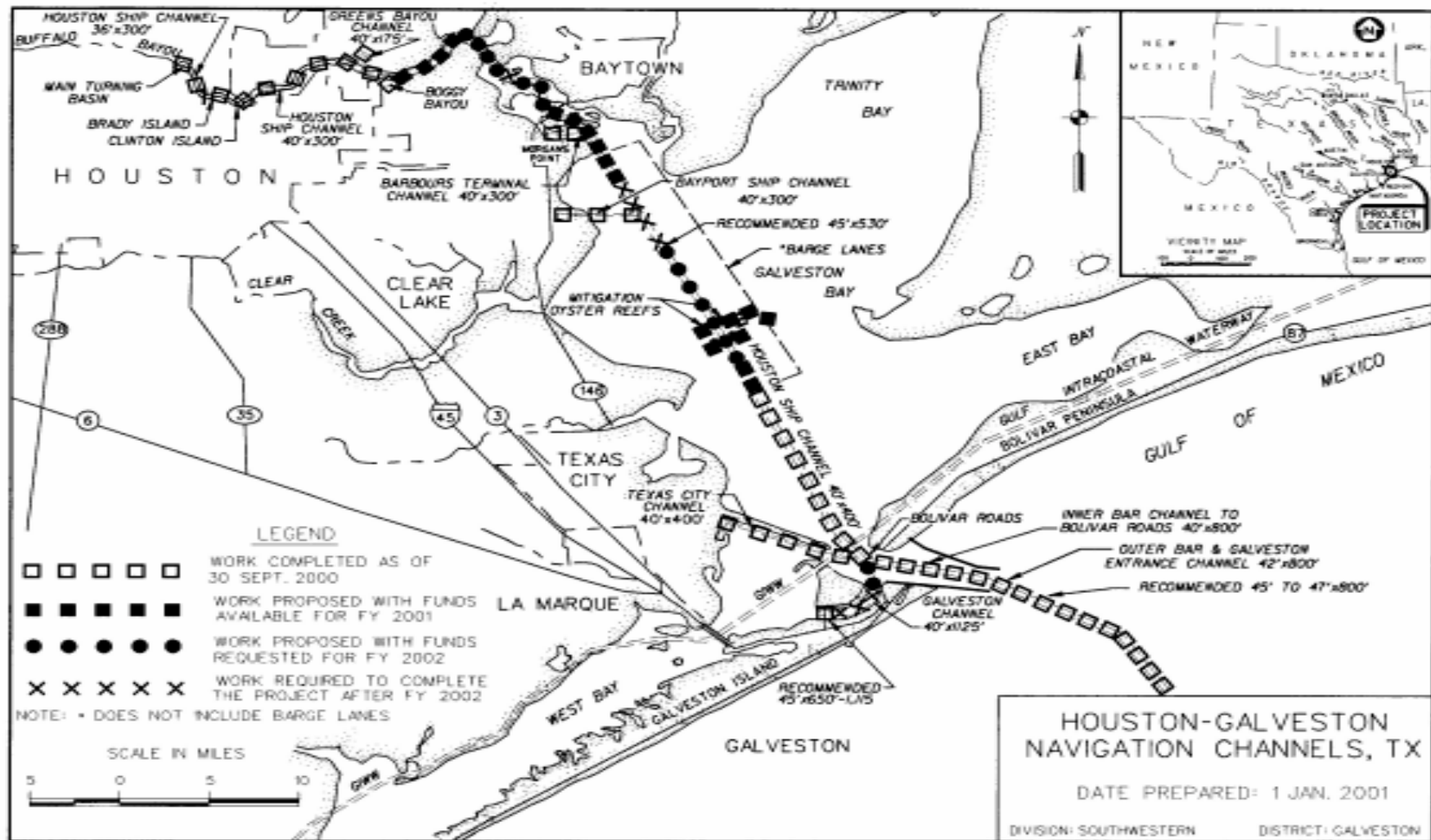
Division: Southwestern

District: Galveston

Project: Houston-Galveston
Navigation Channels, Texas

3 April 2001

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Division: Southwestern

District: Galveston

Project: Houston-Galveston
Navigation Channels, Texas

3 April 2001

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APPROPRIATION TITLE: Construction General - Navigation/Mitigation

PROJECT: Neches River Saltwater Barrier, Texas (Continuing)

LOCATION: The project is located on the Neches River in Jefferson and Orange Counties, Texas, about 7 miles north of the I-10 bridge and just south of the Big Thicket National Preserve at Beaumont, Texas.

DESCRIPTION: The project provides for a tainter-gated saltwater barrier structure, a sector-gated navigation bypass channel, and an access road and levee.

AUTHORIZATION: Water Resources Development Act (WRDA) of 1976.

REMAINING BENEFIT-REMAINING COST RATIO 4.5 to 1 at 7 1/8 percent.

TOTAL BENEFIT-COST RATIO: 4.88 to 1 at 7 1/8 percent.

INITIAL BENEFIT-COST RATIO: 4.88 to 1 at 7 1/8 percent (FY 2000).

BASIS OF BENEFIT-COST RATIO: Benefits are from the General Revaluation Report dated Dec 97 at Oct 1997 price levels.

Division: Southwestern

District: Galveston

Project: Neches River Saltwater
Barrier, Texas

3 April 2001

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SUMMARIZED FINANCIAL DATA		ACCUM PCT. OF EST. FED. COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
			Entire Project	0	Being Determined
Estimated Federal Cost	\$ 45,375,000				
Estimated Non-Federal Cost	15,125,000				
Cash Contribution	\$9,375,000				
Other Costs	\$5,750,000				
Total Estimated Project Cost	\$ 60,500,000				

PHYSICAL DATA

Allocations to 30 September 2000	\$ 7,822,000		Overflow Dam:
Conference Allowance for FY 2001	9,000,000		Neches River - at river mile 23
Allocation for FY 2001	7,542,000	<u>1/</u>	Relocations:
Allocations through FY 2001	15,364,000	34%	Cemeteries
			Utilities
Allocation Requested for FY 2002	8,068,000	52%	Roads
Programmed Balance to Complete			Lands & Damages:
after FY 2002	21,943,000		Acquisitions, Condemnations, Appraisals
Unprogrammed Balance to Complete			Tainter Gate Structure:
after FY 2002	0		Clearing, Excavation, etc.

1/ Reflects \$1,440,000 reduction assigned as savings and slippage and \$18,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

Division: Southwestern

District: Galveston

Project: Neches River Saltwater
Barrier, Texas

3 April 2001

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JUSTIFICATION: Annually, the fresh water supply sources to the City of Beaumont and the Lower Neches Valley Authority (LNVA) are threatened by salt water intruding up the Neches River during periods of low river flow and high withdrawal rates by the water supply users. The Sabine - Neches Waterway project, constructed at 100 percent Federal costs, contributes to 75 percent of the saltwater intrusion. Upstream water supply withdrawals contribute to 25 percent of the saltwater intrusion. To avoid damages, the LNVA constructs temporary saltwater barriers in the Neches River and Pine Island Bayou. Although effective and economical, these barriers interfere with navigational and recreational use. However, these temporary barriers are unacceptable for environmental and navigation reasons as a long-term solution to the problem of salinity intrusion. This project will mitigate the saltwater intrusion impacts resulting from the Federal deepening of the Sabine - Neches Waterway. There are 26 industries in the Beaumont-Port Arthur area which use about 40 percent of the LNVA water (approximately 41 billion gallons annually). The type of industries range from refining petrochemical to tire and rubber, and raw products for resin. The industrial sector is entirely dependent on LNVA, and cannot accept water with more chloride than 150 parts per million (ppm) for processing, and 250 ppm for cooling. Additionally, high quality water is required for resin production. The area produces about 70 percent of resins (used for plastics) made in the United States.

Annual Benefits	Amount
Fish & Wildlife	\$ 7,086,000
Other (Agricultural, Industrial, Municipal)	15,561,000
Total	\$22,647,000

FISCAL YEAR 2002: The requested amount of \$8,068,000 will be applied as follows:

Continue Construction	\$ 7,550,000
Federal Review of Land Acquisition and Relocations	5,000
E&D During Construction	105,000
Construction Management	408,000
Total	\$ 8,068,000

Division: Southwestern

District: Galveston

Project: Neches River Saltwater
Barrier, Texas

NON-FEDERAL COST: By letter dated 9 May 1997, the Assistant Secretary of the Army (Civil Works) approved the project plan be cost shared at 75/25 as a navigation mitigation project to mitigate for the adverse impacts the Sabine-Neches Waterway has had on area water supplies by contributing to salt water intrusion. The Assistant Secretary of the Army (Civil Works) also approved a 75/25 cost sharing for the Operations, Maintenance Repairs, Rehabilitation, and Replacement Costs in a letter dated October 27, 1999. The non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way necessary for Construction	\$ 230,000	
Relocations determined to be necessary for implementation of the project	\$ 5,520,000	
Cash payment during the period of construction	\$ 2,100,000	
Voluntarily contribute additional cash during the period of construction to make the non-Federal contribution equal to 25% of the total project first cost	\$ 7,275,000	
Operation, Maintenance, Repair, Replacement & Rehabilitation		\$114,000
Total	\$15,125,000	\$114,000

STATUS OF LOCAL COOPERATION: The sponsor for the navigation/mitigation project is Lower Neches Valley Authority (LNVA). The current non-Federal cost estimate of \$15,125,000 for navigation/mitigation, includes a cash contribution of \$9,375,000. In a letter dated September 20, 1991, the local sponsor expressed a renewed interest in the project. The Corps of Engineers requested a letter of assurance from the local sponsor and that letter was furnished on January 5, 1994. The letter confirmed the local sponsor's awareness of the WRDA 86 cost-sharing provisions, provided assurance of project support and ability to financially support the project, and recommended expeditious undertaking of the project reevaluation. The Sponsor's latest letter expressing their continued support is dated August 20, 1998. The Project Cooperation Agreement was executed May 22, 2000.

Division: Southwestern

District: Galveston

**Project: Neches River Saltwater
Barrier, Texas**

3 April 2001

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COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$45,375,000 is an increase of \$2,580,000 from the latest estimate (\$42,795,000) presented to Congress (FY 2001). This change includes the following items:

ITEMS	AMOUNT
Price Escalation on Construction Features	\$1,027,000
Post Contract Award and Other Estimating Adjustments	1,553,000
Total	\$2,580,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A supplement to the Final Environmental Impact Statement was prepared as part of the phase I GDM dated July 1981. The draft Environmental Assessment contained in the General Reevaluation Report, completed in December 1997, concluded that the recommended plan would not have a significant adverse environmental effect on the quality of the environment. The final Environmental Assessment was completed in October 1998.

OTHER INFORMATION: The project, as authorized by the Water Resources Development Act of 1976, limited the local sponsor's share of the total project cost to \$2,100,000. By memorandum dated 9 May 1997, the Assistant Secretary of the Army (Civil Works) concluded that the project be cost shared as a navigation mitigation project to mitigate for the adverse impacts the Sabine-Neches Waterway has had on area water supplies by contributing to saltwater intrusion. The authorizing documents found that the Sabine-Neches Waterway project, constructed at 100 percent Federal costs, caused 75 percent of the saltwater intrusion, and that 25 percent of the problem resulted from upstream withdrawals. On this basis, the Chief of Engineers Report recommended a Federal cost of 75 percent, and a non-Federal cost of 25 percent. The local sponsor has agreed to voluntarily contribute funds, under the authority of Section 4 of the River and Harbors Act of 1915, in excess of the \$2,100,000 to make the non-Federal share of project costs equal to 25 percent of total project costs.

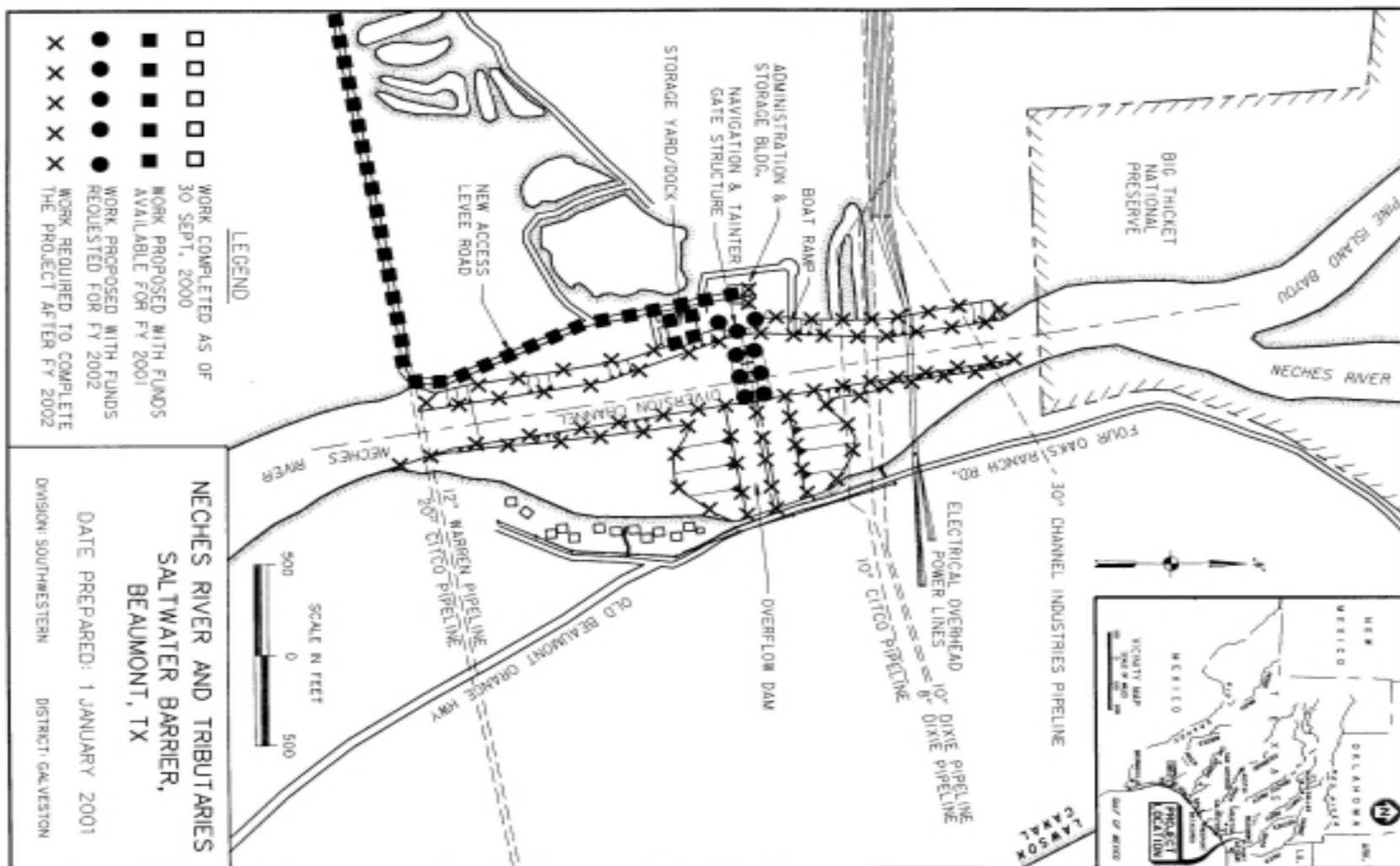
Division: Southwestern

District: Galveston

Project: Neches River Saltwater
Barrier, Texas

3 April 2001

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Division: Southwestern

District: Galveston

Project: Neches River Saltwater Barrier, Texas

3 April 2001

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APPROPRIATION TITLE: Construction, General - Locks and Dams (Navigation)

PROJECT: McClellan-Kerr Arkansas River Navigation System, Locks and Dams, AR and OK (Continuing)
(Excluding Montgomery Point Lock and Dam)

LOCATION: The project is located in 15 counties in Arkansas and six counties in Oklahoma. The project begins at the confluence of the Mississippi and White Rivers and follows the White River and the Arkansas Post Canal a distance of 19 miles to the Arkansas River; thence up the Arkansas River 374 miles to the mouth of the Verdigris River; and thence up the Verdigris River to Catoosa, Oklahoma, a distance of 50 miles.

DESCRIPTION: The authorized project provides for the improvement of the Arkansas River and its tributaries by the construction of dams and channels to serve navigation, afford additional flood control, produce hydroelectric power, and provide related benefits, such as recreation and wildlife propagation. The navigation feature of the project consists of a 9-foot navigation channel from the Mississippi River to Catoosa, Oklahoma, 15 miles east of Tulsa.

AUTHORIZATION: River and Harbor Act of 1946, Water Resources Development Acts of 1974, 1986, and 1992.

REMAINING BENEFIT-REMAINING COST RATIO: The remaining benefit-remaining cost ratio is not applicable because the project is nearing completion.

TOTAL BENEFIT-COST RATIO: See above.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 2-1/2 percent (FY 1963).

BASIS OF BENEFIT-COST RATIO: Benefits are from evaluation approved in July 1968 at 1968 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST (CofE Only)	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost (CoE)	\$651,000,000		Entire Project	94	Being Determined
Estimated Federal Cost (USCG)	2,268,000				
Estimated Non-Federal Cost	0				
Total Estimated Project Cost	\$653,268,000				

Division: Southwestern

District: Little Rock

Project: McClellan-Kerr Arkansas River
Navigation System, Locks and Dams
Arkansas and Oklahoma

ACCUM
PCT OF EST
FED COST

Allocations to 30 September 2000	\$613,770,000		1/ Reflects \$528,000 reduction
Conference Allowance for FY 2001	3,300,000		assigned as savings and
Allocation for FY 2001	2,766,000	1/	slippage, and \$6,000 rescinded
Allocations through FY 2001	616,536,000	95	in accordance with the Consolidated
			Appropriations Act, 2001.
Allocation Requested for FY 2002	3,000,000	95	
Programmed Balance to Complete	31,464,000		
Unprogrammed Balance to Complete after FY 2002	0		

Channels:	White River - 9.8 mi, 300' wide, mi 9.8 to 0.0	Verdigris River - 50.3 mi, 150' wide (1965 survey)
	Arkansas Post - 9.2 mi, 300' wide, mi 19.0 to Canal 9.8	
	Arkansas River - 374 mi, 250' wide, mi 460.2 1940 survey) to 41.6 (1943 survey)	All navigation channels were excavated to an initial depth of 12' or more below normal pool level.
Locks:	Type - Single Chamber, single lift with miter Gates	Normal (maximum) Lift - Varies from 14' for Lock No. 4 to 30' for Lock No. 1.
	Size - 110' X 600'	Number of Locks and Dams - 11 on Arkansas River and canal, 2 on Verdigris River.
Dams:	Movable nonnavigable type with low sills, piers, tainter gates, abutments, and overflow embankments where required.	
Lands and Damages:		
Acres:	126,501	Type: Predominately agricultural
		Improvements: Typical farm units

Division: Southwestern **District:** Little Rock **Project:** McClellan-Kerr Arkansas River
Navigation System, Locks and Dams
Arkansas and Oklahoma

PHYSICAL DATA (CONT'D)

Relocations:

Roads:	18 miles	\$45,280,000	(Includes replacing 9 bridges, alter 3 bridges, and abandon 1 bridge.)
Railroads:	7 miles	\$40,436,000	(Includes replacing 2 bridges, alter 6 bridges, and abandon 1 bridge.)
Cemeteries, Utilities, and Structures:		\$30,016,000	Entrance Channel
(Conway Water Supply)		(\$21,324,000)	Levee: 3 miles \$13,932,000

JUSTIFICATION: The McClellan-Kerr Arkansas River Navigation System was conceived and authorized as an overall plan made up of a group of interrelated elements consisting of lakes, multiple-purpose structures, navigation structures, and bank stabilization works, all designed on a coordinated basis to provide for development of optimum benefits. In Oklahoma, construction of Keystone and Eufaula Lakes, Robert S. Kerr Lock and Dam, Webber Falls Lock and Dam and the initial and second phase of Oologah Lake are complete, as is construction of Dardanelle Lock and Dam and the Ozark-Jeta Taylor Lock and Dam in Arkansas and construction of bank stabilization and channel rectification between the Robert S. Kerr Dam in Oklahoma and the mouth. The project opened for navigation from the Mississippi River to the Port of Tulsa at Catoosa, Oklahoma in 1970. Completion of the navigation route was a significant benefit to the economy of the surrounding area. In 2000, an estimated 11,900,000 tons of cargo were moved on the navigation system. Of this traffic, 3,400,000 tons were inbound; 5,300,000 tons were outbound, 2,800,000 tons were moved internally; and 400,000 tons were through traffic. These movements included such commodities as rock, grain, iron and steel, chemicals, chemical fertilizers, coal, petroleum products, and sand and gravel. The average annual benefits, based on July 1968 price levels, are as follows:

Annual Benefits	Amount
Navigation	\$40,470,000
Power	14,838,900
Channel Stabilization	6,575,000
Flood Control	6,602,600
Water Supply	828,900
Fish and Wildlife	312,000
Recreation	2,297,000
Area Redevelopment	3,355,800
Total	\$75,280,200

Division: Southwestern

District: Little Rock

**Project: McClellan-Kerr Arkansas River
Navigation System, Locks and Dams
Arkansas and Oklahoma**

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Land Acquisition	\$3,000,000
Total	\$3,000,000

NON-FEDERAL COST: Local interests are required to provide adequate terminal and transfer facilities for navigation and bear the increased cost of maintenance and operation of all altered rail and highway routes, including bridges and appurtenances and utilities and other existing improvements, other than federally owned.

STATUS OF LOCAL COOPERATION: Prior to authorization of the project, local interests furnished written assurances that they would construct suitable public terminals. The requirements relative to increased cost of maintenance and operation of altered facilities apply to the owners of these facilities and were covered during negotiations of relocations contracts for the alteration of the various facilities.

Laws enacted in 1959 by the States of Arkansas and Oklahoma authorized the organization and operation of port authorities and permitted political subdivisions to engage in port activities. Port authorities have been organized to develop facilities in Oklahoma for the Tulsa-Rogers counties and the city of Muskogee and these ports are in operation.

In the State of Arkansas, port authorities have been organized to develop public port and harbor facilities at Fort Smith, Van Buren, Clarksville, Dardanelle-Russellville, Morrilton, Little Rock, North Little Rock, Ozark, and Pine Bluff-Jefferson County Area. The Clarksville Port Authority has acquired a 28-acre tract of land for the development of its port facility. The Fort Smith, Little Rock, and Pine Bluff-Jefferson County Ports are in operation.

In addition to the public ports discussed above, 71 companies have developed private port facilities along the navigation route in the State of Arkansas.

There are no other cost sharing or repayment requirements applicable to the project.

COMPARISON OF FEDERAL (CORPS OF ENGINEERS) COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate of \$651,000,000 is the same as the latest estimate (\$651,000,000) submitted to Congress (FY2001).

Division: Southwestern

District: Little Rock

Project: McClellan-Kerr Arkansas River
Navigation System, Locks and Dams
Arkansas and Oklahoma

3 April 2001

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STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The overall project is essentially complete and in operation. The Final Operating and Maintenance Environmental Impact Statement for the McClellan-Kerr Arkansas River Navigation System in the Little Rock District was filed with the Council on Environmental Quality on 6 March 1975. The final Environmental Impact Statement for Tulsa District was filed with the Council on Environmental Quality on 28 July 1975.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1949 and for construction in FY 1963. The Montgomery Point Lock and Dam is now a separate project and under construction.

Division: Southwestern

District: Little Rock

Project: McClellan-Kerr Arkansas River
Navigation System, Locks and Dams
Arkansas and Oklahoma

3 April 2001

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APPROPRIATION TITLE: Construction, General - Locks and Dams (Navigation)

PROJECT: Montgomery Point Lock and Dam, AR (Continuing)

LOCATION: This project is located in Desha County, Arkansas, on the White River approximately one half mile from the Mississippi River.

DESCRIPTION: The authorized project provides for the improvement of the Arkansas River and its tributaries by the construction of dams and channels to serve navigation, afford additional flood control, produce hydroelectric power, and provide related benefits, such as recreation and wildlife propagation. The navigation feature of the project consists of a 9-foot navigation channel from the Mississippi River to Catoosa, Oklahoma, 15 miles east of Tulsa. The Montgomery Point Lock and Dam would be the first lock and dam on the system.

AUTHORIZATION: River and Harbor Act of 1946.

REMAINING BENEFIT-REMAINING COST RATIO: 1.10 to 1 at 8 percent.

TOTAL BENEFIT-COST RATIO: 1.14 to 1 at 8 percent.

INITIAL BENEFIT-COST RATIO: 1.14 to 1 at 8 percent (FY 1997).

BASIS OF BENEFIT-COST RATIO: Benefits are derived from an evaluation report approved in January 1994 at 1 October 1993 price levels.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost (CoE)	\$242,000,000	Entire Project	53	Being Determined
Estimated Non-Federal Cost	0			
Total Estimated Project Cost	\$242,000,000			

Division: Southwestern

District: Little Rock

Project: Montgomery Point
Lock and Dam, Arkansas

3 April 2001

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SUMMARIZED FINANCIAL DATA (CONTINUED)

		ACCUM PCT OF EST FED COST	
Allocations to 30 September 2000	\$125,043,000		
Conference Allowance for 2001	40,000,000		
Allocation for 2001	33,021,000 1/		1/Reflects \$6,400,000
Allocations through 2001	158,064,000	65	reduction assigned as
			savings and slippage,
Allocation Requested for FY 2002	18,000,000	73	\$500,000 reprogrammed
Programmed Balance to Complete	65,936,000		from project, and \$79,000
Unprogrammed Balance to Complete after 2002	0		rescinded in accordance
			with the Consolidated
			Appropriations Act, 2001.

PHYSICAL DATA

Channels: White River - 9.8 mi, 300' wide, mi 9.8 to 0.0

Locks: Type - Single Chamber, single lift with miter gates Normal (maximum) Lift - Varies from 14' for Lock No. 4 to 30' for Lock No. 1.
Size - 110' X 600' Lift up to 20 feet.

Dams: Movable navigable type with "bottom" operated gates

Lands and Damages:

Acres: 858

Type: Timber

Improvements: None

Division: Southwestern

District: Little Rock

Project: Montgomery Point
Lock and Dam, Arkansas

3 April 2001

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JUSTIFICATION: The McClellan-Kerr Arkansas River Navigation System was conceived and authorized as an overall plan made up of a group of interrelated elements consisting of lakes, multiple-purpose structures, navigation structures, and bank stabilization works, all designed on a coordinated basis to provide for development of optimum benefits. The project opened for navigation from the Mississippi River to the Port of Tulsa at Catoosa, Oklahoma in 1970. The White River Entrance Channel, the first 10 miles of the McClellan-Kerr Arkansas River Navigation Project, is the only reach in the navigation system where the minimum stage is not controlled by a downstream dam, but by the stages of the Mississippi River. Changes on the Mississippi River have been observed for a number of years and have resulted in low water problems in the White River Entrance Channel. Construction of the Montgomery Point Lock and Dam will greatly increase the reliability of the system as requested by the users. A more reliable system should increase commerce to 35-45 million tons per year. The average annual benefits, based on October 1993 price levels, are as follows:

Annual Benefits	Amount
Navigation	\$20,327,000
Area Redevelopment	700,000
Total	\$21,027,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Construction of Lock and Dam	\$16,440,000
Planning, Engineering and Design	60,000
Construction Management	1,500,000
Total	\$18,000,000

NON-FEDERAL COST: None

STATUS OF LOCAL COOPERATION: Congress has determined that the Inland Waterways Trust Fund will not be used. There are no other cost sharing or repayment requirements applicable to the project.

Division: Southwestern

District: Little Rock

Project: Montgomery Point
Lock and Dam, Arkansas

3 April 2001

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COMPARISON OF FEDERAL (CORPS OF ENGINEERS) COST ESTIMATES: The total project cost estimate of \$242,000,000 is the same as the latest estimate presented to Congress (FY 2001).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The overall navigation system is essentially complete and in operation. The Final Operating and Maintenance Environmental Impact Statement for the McClellan-Kerr Arkansas River Navigation System in the Little Rock District was filed with the Council on Environmental Quality on 6 March 1975. The final Environmental Impact Statement for Tulsa District was filed with the Council on Environmental Quality on 28 July 1975. The final Environmental Impact Statement for the Montgomery Point Lock and Dam was filed with the Environmental Protection Agency on 28 June 1991.

OTHER INFORMATION: The McClellan-Kerr project was authorized by the River and Harbor Act of 1946 and it has been determined the Montgomery Point Lock and Dam was included in the authorization. The real estate estimate includes purchase of 703 acres that will be used to mitigate construction of the Montgomery Point Lock and Dam. Acquisition of land for the lock and dam was completed in FY 1996. The construction contract for the lock and dam was awarded in July 1997. As directed by Congress in the Energy and Water Development Appropriations Act of 2001, \$33,021,000 is being used to expedite the construction on the lock and dam.

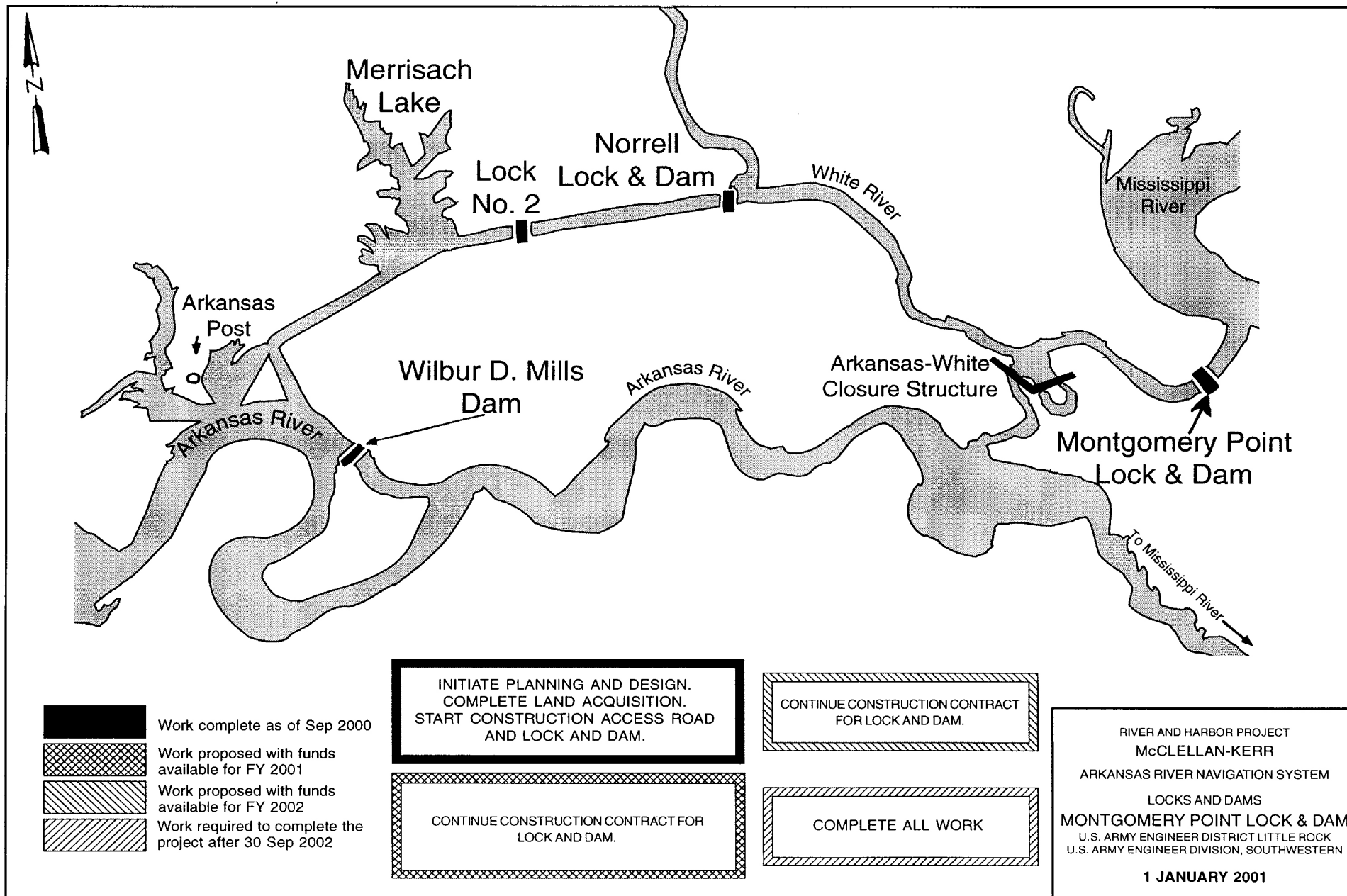
Division: Southwestern

District: Little Rock

Project: Montgomery Point
Lock and Dam, Arkansas

3 April 2001

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Division: Southwestern

District: Little Rock

Project: Montgomery Point
Lock and Dam, Arkansas

3 April 2001

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APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Arkansas City, Kansas (Continuing)

LOCATION: The project is located at the confluence of the Arkansas and Walnut Rivers in southern Kansas in Cowley County.

DESCRIPTION: The authorized plan, the National Economic Development Plan, consists of raising and extending the existing levee to provide standard project flood protection for the city. The lower end of the Walnut River Channel will be modified to a 350-foot bottom width with 3 to 1 side slopes for 1.9 miles and the C Street Canal will be modified to a 25 to 50-foot bottom width with 2 to 1 side slopes for 1.2 miles. The locally preferred plan (LPP) will combine most of the levee in the Walnut River floodplain with a highway by-pass embankment. The LPP will also extend the area of protection beyond that of the National Economic Development Plan.

AUTHORIZATION: Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: 8.5 to 1 at 8 percent.

TOTAL BENEFIT-COST RATIO: 3.3 to 1 at 8 percent.

INITIAL BENEFIT-COST RATIO: 2.8 to 1 at 8 percent (FY 1996).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest evaluation approved in June 1994, at 1994 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 20,850,000		Entire Project	40	Being Determined
Estimated Non-Federal Cost	6,950,000				
Cash Contribution	\$1,950,000				PHYSICAL DATA Grass and Stone Lined Channels: Length-1.9 miles Bottom Width - 350 feet, Walnut River - 25 to 50 feet, C Street Canal Levees: Length - 6 miles Crest Width - 10 feet Average Height - 21 feet
Other Costs	5,000,000				
Total Estimated Project Cost	\$ 27,800,000				
Allocations to 30 September 2000	6,310,000				
Conference Allowance for FY 2001	5,100,000				
Allocation for FY 2001	7,074,000 <u>1/</u>				

Division: Southwestern

District: Tulsa

Project: Arkansas City, Kansas

3 April 2001

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SUMMARIZED FINANCIAL DATA (Continued):

**ACCUM.
PCT. OF EST.
FED. COST**

Allocations through FY 2001	\$13,384,000	64
Allocation Requested for FY 2002	3,050,000	79
Programmed Balance to Complete	4,416,000	
Unprogrammed Balance to Complete after FY 2002	0	

1/ Reflects \$816,000 reduction assigned as savings and slippage, \$2,800,000 reprogrammed to the project, and \$10,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The project will provide protection from periodic floods which have inundated the city numerous times in past years during periods of heavy spring and summer rains and storms. The maximum flood of record, that of 1923 with a 50 year frequency, would have caused an estimated \$59 million in damages at October 1999 prices and conditions of development. Over \$450 million in improvements would be severely impacted by events greater than 45-year on the Arkansas River and 75-year on the Walnut River. Average annual benefits are \$7,980,000, all flood damage prevention, based on January 1994 price levels.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Construction	\$ 2,538,000
Planning, Engineering & Design	258,000
Construction Management	254,000
Total	\$ 3,050,000

Division: Southwestern

District: Tulsa

Project: Arkansas City, Kansas

3 April 2001

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NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction	Annual Operation, Maintenance, Repair Rehabilitation and Replacement Costs
Provide lands, easements, rights-of-way and dredged material disposal areas.	\$1,000,000	
Modify or relocate utilities, roads, bridges (except railroad bridges and other facilities, where necessary in the construction of the project.	1,000,000	
Section 215 credit for Walnut River levee north of Madison Avenue, which is incorporated into the highway bypass.	3,000,000	
Pay 7 percent of the costs allocated to flood control (to bring the total cost share to 25 percent) and bear all cost of operation, maintenance and replacement of flood control facilities.	1,950,000	\$ 92,000
Total Non-Federal Costs	\$6,950,000	\$ 92,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The city of Arkansas City indicated a willingness and capability by signing a resolution of assurance on 15 May 1994, and has since provided a letter of continued support for the project dated 28 December 1999. The Project Cooperation Agreement (PCA) was executed 4 September 1996.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$20,850,000 is an decrease of \$6,950,000 from the latest estimate (\$27,800,000) presented to Congress (FY 2001). The change includes the following items:

ITEM	AMOUNT
Post Contract Award and Other Estimating Adjustments	(-)\$ 6,245,000
Price Escalation on Construction Features	(-) 705,000
Total	(-)\$ 6,950,000

Division: Southwestern

District: Tulsa

Project: Arkansas City, Kansas

3 April 2001

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STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency in April 1995.

OTHER INFORMATION: Funds to initiate preconstruction, engineering and design were appropriated in FY 1989. Funds to initiate construction were appropriated in FY 1996. Authorization of the project, as set forth in the Water Resources Development Act of 1986, provides that the project also includes the purchase, development, and management of 35 acres of land adjacent to the Kaw Wildlife Management Area. This action would replace the 35 acres of land lost due to the Walnut River channel improvements and development of a 3.3-acre wetland, with a 1.2-acre buffer zone, in borrow area D in the northwest part of the city to mitigate the loss of 2.3 acres of wetlands. The total estimated cost for mitigation at the project is \$75,000 for acquisition of 35 acres of land and \$700,000 to establish a combination of high value woody vegetation and nesting cover on lands secured for mitigation.

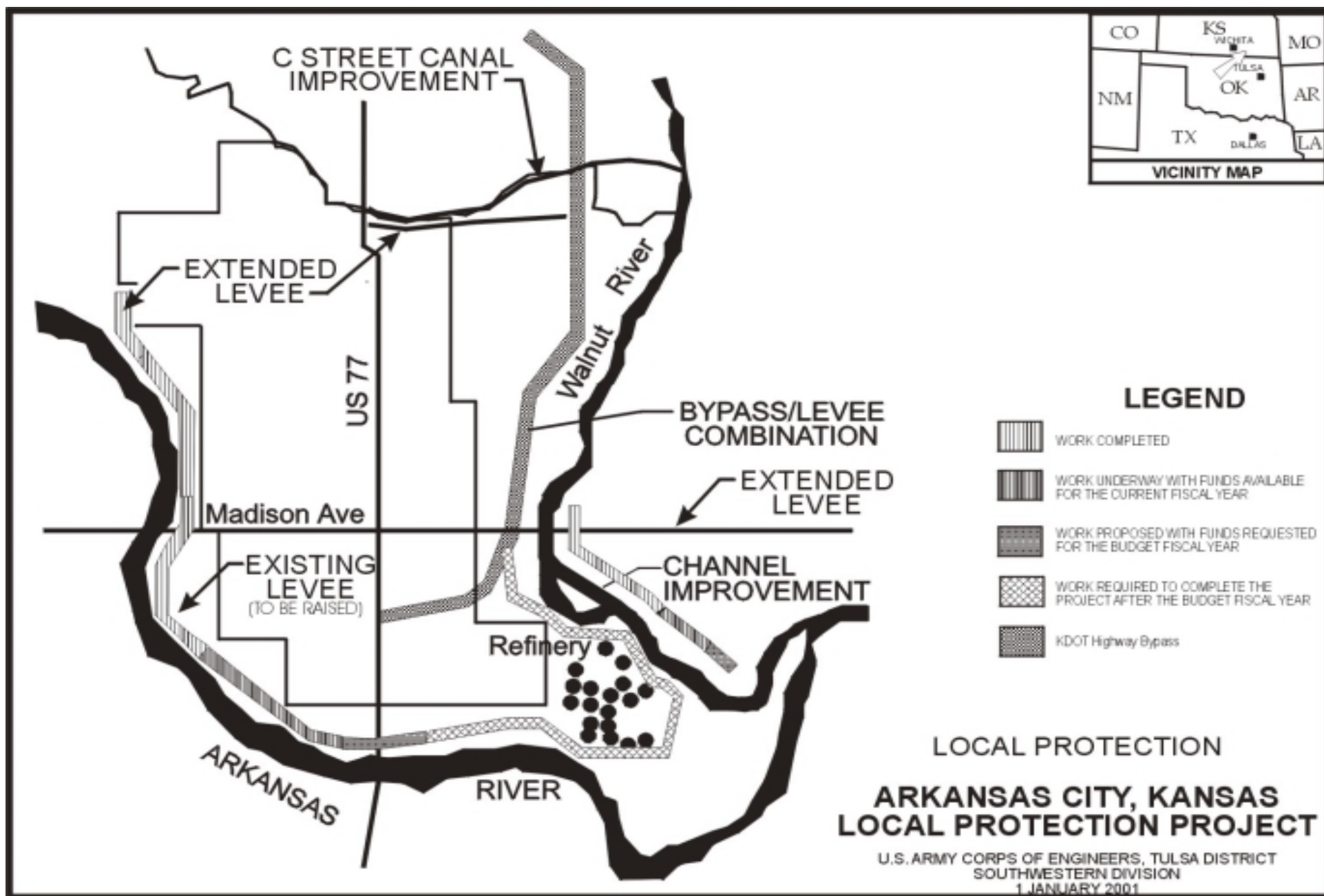
Division: Southwestern

District: Tulsa

Project: Arkansas City, Kansas

3 April 2001

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Division: Southwestern

District: Tulsa

Project: Arkansas City, Kansas

3 April 2001

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APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Brays Bayou, Houston, Texas (Continuing)

LOCATION: The project is located in the metropolitan area of Houston, in Harris County, Texas.

DESCRIPTION: The project provides for 3 miles of channel improvements, 3 flood detention basins, 7 miles of stream diversion, and recreation features including hike-and-bike trails, picnic facilities, sports fields, comfort stations and parking areas. As stated in the Water Resources Development Act of 1996, Section 211, subject to the approval of the Secretary of the Army, the non-Federal interest may design and construct an alternative to the diversion component.

AUTHORIZATION: Water Resources Development Act of 1990.

REMAINING BENEFIT-REMAINING COST RATIO: 3.4 to 1 at 7 5/8 percent.

TOTAL BENEFIT-COST RATIO: 2.97 to 1 at 7 5/8 percent.

INITIAL BENEFIT-COST RATIO: 2.97 to 1 at 7 5/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest economic analysis included in the comprehensive Feasibility Report for Buffalo Bayou and Tributaries, dated July 1990 with October 1989 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	312,485,000		Detention Element	25%	Being Determined
			Diversion Element	0	
Estimated Non-Federal Cost	165,265,000				
Cash Contributions	26,925,000		Entire Project	0	
Other Costs	138,340,000				

		PHYSICAL DATA
Total Estimated Project Cost	\$ 477,750,000	Channel:
		(Detention Element)
		Brays Bayou - 3.7 miles
		Detention Basins- 3
		(Diversion Element)
		Stream Diversion - 7 miles, or
		an alternative to Diversion
		Recreation facilities Hike-and-bike
		trails with picnic facilities, sports
		fields, and other day-use facilities.

1/ Reflects \$960,000 assigned as savings and slippage, \$3,400,000 reprogrammed to the project, and \$12,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

Division: Southwestern

District: Galveston

Project: Brays Bayou, Houston, Texas

3 April 2001

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JUSTIFICATION: Brays Bayou drains about 137 square miles in the south-central portion of the Buffalo Bayou watershed. The area is subject to rainstorms throughout the year and urban flooding is a common occurrence. About 53,400 homes and businesses are currently subject to flooding by the Standard Project Flood (SPF), and about 25,000 of these properties would be subject to flooding by a 100-year frequency flood. On an average annual basis, stream flooding could cause nearly \$46,000,000 in damages per year to existing properties. The plan would reduce the existing 100-year frequency floodplain area by about 97 percent. Average annual flood damages would be reduced by about 95 percent. The recreational development will partially satisfy existing demand in the area. Average annual benefits, annualized at a 7-3/8% interest rate and based on October 1989 prices are as follows:

Annual Benefits	Amount
Flood Damage Prevention	87,268,400
Recreation	1,623,700
Total	88,892,100

FISCAL YEAR 2002: The total program amount of \$4,066,000 will be applied as follows. Funds will be used to reimburse the Sponsor for completed discrete elements of the project in accord with Section 211(f) of Water Resources Development Act of 1996 and an executed Project Cooperation Agreement (PCA).

Complete reimbursement of sponsor for completed work (Discrete Segment #6)	\$3,000,000
Reimburse sponsor for completed GRR	1,021,000
Galveston District Section 211 implementations costs (auditing, coordinating, review of E&D, constr. management)	45,000
Total	\$4,066,000

NON-FEDERAL COST & REQUIREMENTS: Brays Bayou has been identified as a demonstration project by Section 211 of the Water Resources Development Act of 1996 (P.L. 104-303). A Project Cooperation Agreement is required between the Corps and the Harris County Flood Control District, the project's sponsor. In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Detention Element		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	58,750,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	1,490,000	
Pay one-half of the separable costs allocated to recreation and bear all cost of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	2,803,000	300,000
Pay 5 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	10,166,000	247,480

Division: Southwestern

District: Galveston

Project: Brays Bayou, Houston, Texas

3 April 2001

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Requirements of Local Cooperation (cont'd)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Diversion Element		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	40,960,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	37,140,000	
Pay one-half of the separable costs allocated to recreation and bear all cost of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	572,000	57,300
Pay 5 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	13,384,000	371,220
Total Non-Federal Costs	165,265,000	976,000
The non-Federal sponsors must also agree to make all required payments concurrently with project construction.		

Division: Southwestern

District: Galveston

Project: Brays Bayou, Houston, Texas

3 April 2001

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STATUS OF LOCAL COOPERATION: The sponsor for the flood control project is Harris County, acting through the Harris County Flood Control District. The PCA for the flood control portion of the Detention Element was executed on March 3, 2000. The current non-Federal cost estimate of \$70,406,000 for this portion is an increase of \$226,000 from the non-Federal cost estimate of \$70,180,000 noted in the Project Cooperation Agreement (PCA). In accordance with Section 211 of the Water Resources Development Act of 1996, the sponsor is investigating the Diversion Element in an effort to find an alternative to the authorized project. A design agreement for this effort is currently being negotiated. There is currently no sponsor for the recreation features of the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$312,485,000 is an increase of \$6,372,000 from the latest estimate (\$306,113,000) presented to Congress (FY 2001). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	\$ 6,847,000
Post Contract Award and Other Estimating Adjustments	(- 475,000)
Total	\$ 6,372,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement was filed with the Environmental Protection Agency in September 1988. The Environmental Assessment (EA) for the Detention Element was completed on 3 April 1998 with the signing of the Finding of No Significant Impacts (FONSI).

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1990, and funds to initiate construction were appropriated in Fiscal Year 1998.

The Brays Bayou project is divided into two separable elements, a detention and a diversion element. The detention element has undergone design, and construction was initiated in FY 98. The diversion element is not supported by the Sponsor or the homeowners in the area, so an alternative must be identified to provide a level of protection to this portion of the Houston area. The Harris County Flood Control District (HCFCD), the local sponsor, is currently conducting reformulation studies, and will propose an alternative to the diversion element.

The project was included in the Water Resources Development Act of 1996 (Section 211(f)(6)) as a demonstration project to show advantages and effectiveness of non-Federal interests to undertake planning, design, and construction of Federal Flood Control projects. The HCFCD will receive reimbursement upon completion and approval of discrete segments of the authorized project. Each discrete segment's work will be audited prior to reimbursement. Funds being appropriated will be used to reimburse the sponsor and to pay Corps oversight costs.

Division: Southwestern

District: Galveston

Project: Brays Bayou, Houston, Texas

3 April 2001

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Detention Separable Element

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		135,717,000
Estimated Non-Federal Cost		73,209,000
Cash Contributions	12,969,000	
Other Costs	60,240,000	

REMAINING BENEFIT-REMAINING COST RATIO: 3.4 to 1 at 7 5/8 percent.

TOTAL BENEFIT-COST RATIO: 4.3 to 1 at 7 5/8 percent.

Diversion Separable Element

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		176,768,000
Estimated Non-Federal Cost		92,056,000
Cash Contributions	13,956,000	
Other Costs	78,100,000	

REMAINING BENEFIT-REMAINING COST RATIO: 2.4 to 1 at 7 5/8 percent.

TOTAL BENEFIT-COST RATIO: 2.4 to 1 at 7 5/8 percent.

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Clear Creek, TX (Continuing)

LOCATION: The authorized project is located about midway between the two metropolitan centers of Houston, Texas, on the north and Galveston-Texas City on the south in Harris and Galveston Counties.

DESCRIPTION: The project provides for channel enlargement and easing of bends within the existing stream from Mile 3.8 to Mile 19.1, a second outlet with gated structure from Clear Lake to Galveston Bay, and replacements of riparian woodlands, brush, and wetlands to mitigate environmental effects.

AUTHORIZATION: Flood Control Act of 1968.

REMAINING BENEFIT-REMAINING COST RATIO: 2.1 to 1 at 3 1/4 percent.

TOTAL BENEFIT-COST RATIO: 2.1 to 1 at 3 1/4 percent

INITIAL BENEFIT-COST RATIO: 3.1 to 1 at 3 1/4 percent (FY 1985).

BASIS OF BENEFIT-COST RATIO: Benefits and costs are based on evaluation made in General Design Memorandum, approved October 1982, and updated by Design Memorandum 2 approved 3 September 1986, with October 1986 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost (CofE)	94,115,000		Entire Project	49	Being Determined
Estimated Non-Federal Cost	56,185,000				
Cash Contributions	7,515,000				
Other Costs	48,670,000				
Total Estimated Project Cost	150,300,000				

		PHYSICAL DATA
Allocations to 30 September 2000	22,976,000	Channels: 15.3 miles above Clear Lake
Conference Allowance for FY 2001	1,525,000	Second Outlet: Gated outlet structure and
Allocation for FY 2001	1,178,000 <u>1/</u>	channel from Clear Lake to Galveston Bay
Allocations through FY 2001	24,154,000 26%	Relocations:
Allocation Requested for FY 2002	1,200,000 27%	Railroads: Alterations to three bridges
Programmed Balance to Complete after FY 2002	68,761,000	(\$3,124,000)
Unprogrammed Balance to Complete after FY 2002	0	

1/ Reflects \$244,000 reduction assigned as savings and slippage, \$100,000 reprogrammed from the project, and \$3,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The authorized project will provide flood protection for a rapidly developing residential and commercial area, a suburb of Houston. Value of land and improvements that will be protected from the design flood is estimated at \$530,000,000 based on 1990 price levels. Flooding in June 1976 caused minor damages; however, development in the area has continued and more runoff and damages would occur under current conditions. In July 1979, major flooding occurred and approximately \$52,300,000 in damages were experienced based on October 1996 price levels. The average annual benefits are \$8,128,600, all flood control included in Design Memorandum 2, approved 3 September 1986, based on 1 October 1986 price levels.

FISCAL YEAR 2002: The requested amount of \$1,200,000 will be applied as follows:

Continue General Reevaluation Studies	\$1,200,000
Total	\$1,200,000

Division: Southwestern

District: Galveston

Project: Clear Creek, Texas

3 April 2001

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NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way and borrow and excavated or dredged material placement areas.	22,600,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	26,070,000	
Pay 5 percent of the separable costs allocated for mitigation measures.	336,000	
Pay 5 percent of the costs allocated to flood control, and bear and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	7,179,000	430,000
Total Non-Federal Costs	56,185,000	430,000

The non-Federal sponsors have also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The sponsors are Galveston and Harris Counties. On 30 June 1986, the sponsors entered into a Local Cooperation Agreement to provide the necessary local cooperation. By letter of June 9, 1999, Brazoria County Drainage District No. 4 indicated its intent to be a project sponsor again beginning with participation in the General Reevaluation Report.

The current non-Federal cost estimate of \$56,185,000, which includes a cash contribution of \$7,515,000, is an increase of \$22,396,000 over the non-Federal cost estimate of \$33,789,000 in the Local Cooperation Agreement, which included a cash contribution of \$4,789,000. Analysis of the non-Federal sponsors' financial capability to participate in the project affirms that the sponsors have a reasonable and implementable plan for meeting their financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$94,115,000 is an increase of \$5,455,000 from the latest estimate (\$88,660,000) presented to Congress (FY 2001). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	\$ 5,455,000
Total	\$ 5,455,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency August 1982.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in Fiscal Year 1972. Funds to initiate construction were appropriated by the Fiscal Year 1985 Supplemental Appropriations Act.

By letter 20 February 1986, Brazoria County Drainage District No. 4 (BCDD #4) requested that the portion of the project lying upstream of the Brazoria-Galveston County line, river mile 19.1, be placed in the "inactive" category. Reclassification was approved 27 May 1986. By letter of June 9, 1999, BCDD #4 indicated its intent to be a project sponsor again beginning with participation in the General Reevaluation Report.

The total cost of fish and wildlife mitigation is estimated to be \$6,730,000 (Federal \$6,394,000 and non-Federal \$336,000).

Public opposition to the authorized project upstream of Clear Lake, as currently designed, prompted the local sponsors to review the public's concerns about the project in order to develop a publicly acceptable alternative within the scope of the current Federal authorization. Generally, opposition to the authorized project has focused on environmental concerns in the upper reaches and on induced flooding concerns downstream in Clear Lake. Studies were initiated in Fiscal Year 1998 to determine the Corps approval authority for the sponsor-proposed alternative and how the alternative could be documented for approval. These studies led to the recommendation that a General Reevaluation Report be prepared to consider reevaluation of the authorized project and formulation of the sponsor-proposed alternative or any other alternatives(including buyout or other non-structural alternatives), that the sponsors and the Corps deem reasonable to pursue. The General Reevaluation Report studies were initiated in June 1999 and are estimated to take about four years to complete.

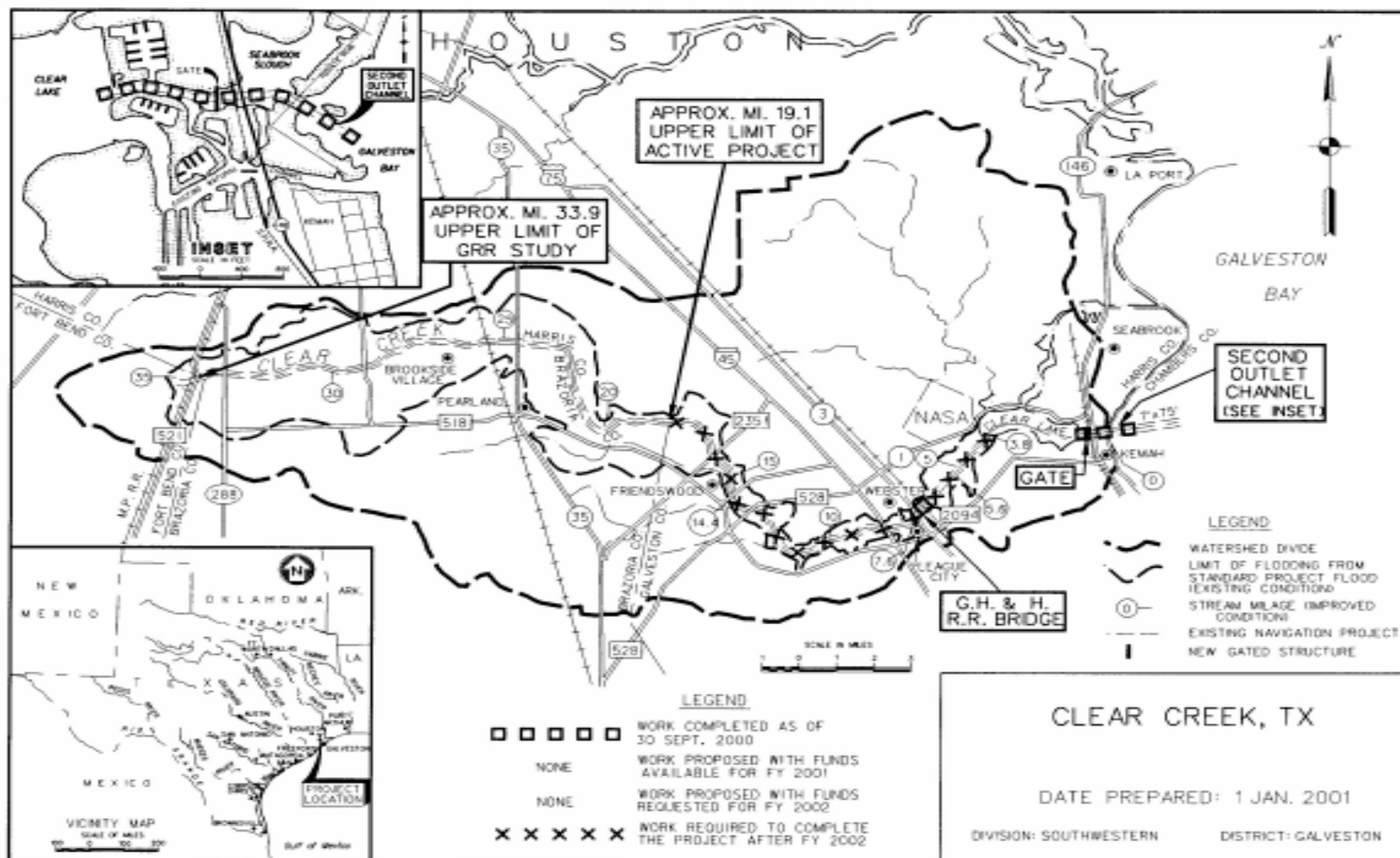
Division: Southwestern

District: Galveston

Project: Clear Creek, Texas

3 April 2001

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Division: Southwestern

District: Galveston

Project: Clear Creek, Texas

3 April 2001

96

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Dallas Floodway Extension, Trinity River, Texas (Continuing)

LOCATION: Dallas, Texas

DESCRIPTION: The project area is located in metropolitan Dallas, Texas. It consists of a 3.7 mile long Chain of Wetlands with an average width of 600 feet with the alignment being placed on the west Trinity River overbank; and Standard Project Flood (SPF) - level levees protecting the Lamar Street, Rochester Park, Central Waste Water Treatment Plant, and the Cadillac Heights area; plus recreation features. During flooding, the upper and lower wetlands would convey floodwaters to outfalls east of IH-45 and north of Loop 12, respectively. Additionally, the wetlands would serve as areas for various wildlife and aquatic growth. The proposed Lamar Levee would extend over a total length of 16,419 feet, with an average height of 17.6 feet. The downstream end of the levee would tie into the previously constructed Rochester Park Levee. The Cadillac Heights Levee is an earthen levee system, which would extend over a total length of 11,891 feet, with an average height of 14.9 feet.

AUTHORIZATION: The flood control portion of the project was authorized by Flood Control Act of 1965. Credits for flood protection works constructed by the non-Federal interest were authorized by the Water Resources Development Act of 1996 (WRDA 96), Section 351, where the Secretary of the Army determines that such work is compatible with the project and is required for its construction. The ecosystem restoration and recreation portions were authorized by the Water Resources Development Act of 1999 (WRDA 99), Section 356.

REMAINING BENEFIT-REMAINING COST RATIO: 2.1 to 1 at 6-5/8 percent.

TOTAL BENEFIT-COST RATIO: 2.1 to 1 at 6-5/8 percent.

BASIS OF BENEFIT-COST RATIO: General Reevaluation Report and Integrated Environmental Impact Statement; dated February 1999.

SUMMARIZED FINANCIAL DATA		ACCUM PCT. OF EST. FED. COST	STATUS (1 JAN 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$76,117,000	<u>1/</u>	Entire Project	5	Being Determined
Estimated Non-Federal Cost	51,041,000	<u>1/</u>			
Cash Contributions	5,699,000				PHYSICAL DATA
Other Costs	45,342,000				3.7 miles of Chain of Wetlands
					5.2 miles of SPF levees
					Restoration of 123 acres
					31 miles of linear recreation
Total Estimated Project Cost	\$127,158,000				

1/ Not including any credit that may apply under WRDA 96, Section 351.

Division: Southwestern

District: Fort Worth

Project: Dallas Floodway Extension,
Trinity River, Texas

3 April 2001

97

SUMMARIZED FINANCIAL DATA (Continued)

**ACCUM
PCT OF EST
FED COST**

Allocations to 30 September 2000	\$ 8,722,000	9	1/Reflects \$320,000 reduction assigned
Conference Allowance for FY 2001	2,000,000		as savings & slippage, \$300,000
Allocation for FY 2001	1,976,000	1/	reprogrammed to the project, and \$4,000
Allocations through FY 2001	10,698,000		rescinded in accordance with the
Allocation Requested for FY 2002	2,000,000		Consolidated Appropriation Act, 2001.
Programmed Balance to Complete after FY 2002	\$ 63,419,000		
Unprogrammed Balance to Complete after FY 2002	0		

JUSTIFICATION: The total project will provide flood damage reduction by the construction of a Chain of Wetlands and two Standard Project Flood Levees. Additionally, this project contains recreation and ecosystem restoration features. The average annual flood damage reduction benefits for the project are \$13,285,100 based on October 1998 price levels. The project will reduce flood damages within the project area. The area experienced property damages during the May 1989 and May 1990 flood events. A total of 2,550 structures are located within the existing hydrologic condition Standard Project Floodplain of the study area. Based on October 1998 prices, these structures are estimated to sustain equivalent annual damages of approximately \$6.5 million. In addition, the level of flood protection would be increased to just upstream of the immediate study area, providing an additional \$6.6 million in flood damage reduction benefits to approximately 10,000 structures. The flood damage retention features, which account for 90 percent of the total project costs, have a benefit-cost ratio of 1.5 to 1, at a 6-5/8 percent discount rate.

Annual Benefits	Amount
Flood Damage Reduction	\$ 13,285,100
Recreation Benefits	5,777,200
Ecosystem Restoration	Not quantifiable
 Total	 \$ 19,062,300

Division: Southwestern

District: Fort Worth

**Project: Dallas Floodway Extension,
Trinity River, Texas**

3 April 2001

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FISCAL YEAR 2002: The Administration's review of this project has not been completed. If the Administration recommends proceeding with the project as set forth in the 1 December 1999 Record of Decision, the requested amount would be used as follows:

Continue Construction of Chain of Wetlands, Cell D	\$ 1,700,000
Construction Management	300,000
Total	\$ 2,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 as modified by the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below.

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation and Replacement Costs
Requirements of Local Cooperation		
Provide lands; easements; rights-of-way; relocation payments and assistance to displaced persons; disposal areas for borrow and excavated or dredged material; and modify or relocate utilities, roads, bridges and other facilities, where necessary for the construction of the project.	\$ 39,650,000	\$ 543,000
Pay one-half of the separable costs allocated to recreation.	3,594,000	83,000
Pay 35 percent of the costs allocated to ecosystem restoration.	2,098,000	56,000
Pay 5 percent cash for project construction	5,699,000	0
Total Non-Federal Costs	\$ 51,041,000	\$ 682,000

The non-Federal sponsor will make all required payments concurrently with project construction. The non-Federal sponsor will also bear all costs of operation, maintenance, repair, rehabilitation and replacement of project features.

Division: Southwestern

District: Fort Worth

Project: Dallas Floodway Extension,
Trinity River, Texas

3 April 2001

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STATUS OF LOCAL COOPERATION: The city of Dallas, Texas, by resolutions on 28 August 1996 and 25 March 1997, selected a locally preferred plan for the project. On 2 May 1998, the citizens passed a bond election to pay for the non-Federal portion of the project. In a letter dated 14 January 1999, the city of Dallas expressed its willingness to cost share. A credit for previously constructed levees by the city of Dallas was authorized in the Water Resources Development Act of 1996, Section 351, where the Secretary of the Army determines that such work is compatible with the project and is required for its construction. The Project Cooperation Agreement (PCA) is scheduled to be executed in September 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The Federal cost estimate (Corps of Engineers) of \$76,117,000 has not been previously presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The General Reevaluation Report and Integrated Environmental Impact Statement, dated February 1999, was released to the State and Federal Agencies and Public on 19 March 1999, for review. The Record of Decision was signed on 1 December 1999.

OTHER INFORMATION: Funds to initiate Preconstruction Engineering and Design were appropriated in Fiscal Year 1991 and for construction in Fiscal Year 2001.

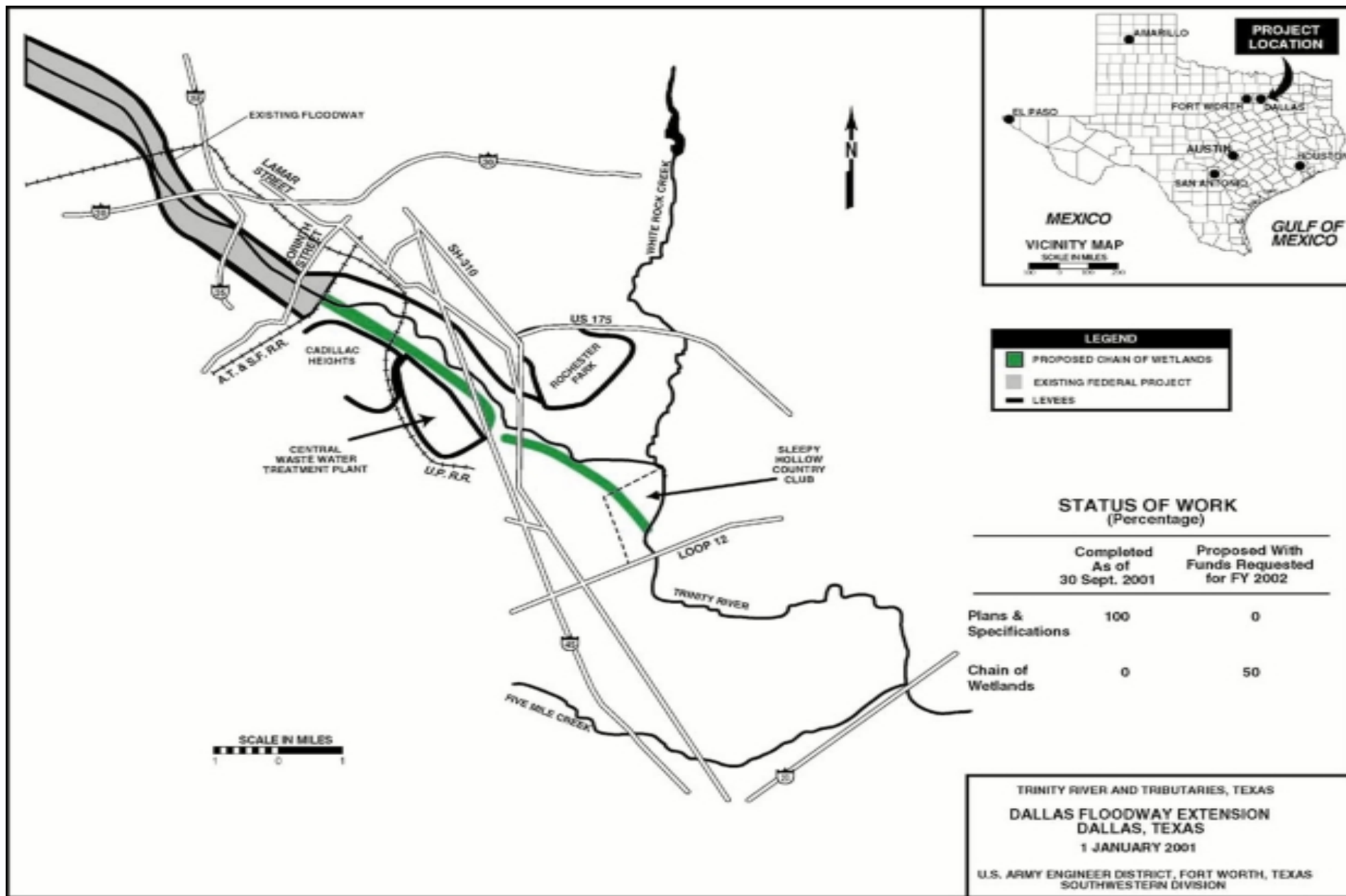
Division: Southwestern

District: Fort Worth

Project: Dallas Floodway Extension,
Trinity River, Texas

3 April 2001

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Division: Southwestern

District: Fort Worth

Project: Dallas Floodway Extension,
Trinity River, Texas

3 April 2001

101

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Johnson Creek, Arlington, TX (Continuing)

LOCATION: Arlington, Texas

DESCRIPTION: The Johnson Creek project includes a buy-out of 140 structures for flood damage reduction, 155 acres of ecosystem restoration, and 2.25 miles of linear recreation features. The buy-out would prevent damages during a 25-year flood event.

AUTHORIZATION: Water Resources Development Act of 1999, Section 101(b)(14).

REMAINING BENEFIT-REMAINING COST RATIO: 1.6 to 1 at 6-5/8 percent.

TOTAL BENEFIT-COST RATIO: 1.6 to 1 at 6-5/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in the Interim Feasibility Report dated March 1999.

		ACCUM PCT. OF EST. FED. COST	STATUS (1 JAN 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
SUMMARIZED FINANCIAL DATA					
Estimated Federal Cost	\$13,630,000	0	Entire Project	15	Being Determined
Estimated Non-Federal Cost	7,810,000				
Cash Contributions	1,661,000				PHYSICAL DATA
LERRDs	18,269,000				Buy-out of 140 structures
Reimbursable	(12,120,000)				Restoration of 155 acres
					2.25 miles of linear recreation
Total Estimated Project Cost	\$21,440,000				

Division: Southwestern

District: Fort Worth

Project: Johnson Creek, Arlington, Texas
Upper Trinity River Basin

3 April 2001

102

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	
Allocations to 30 September 2000	\$ 3,210,000	0	
Conference Allowance for FY 2001	3,000,000	0	
Allocation for FY 2001	2,514,000 1/	0	1/Reflects \$480,000 reduction assigned as
Allocations through FY 2001	5,724,000	42	as savings & slippage and \$6,000
Allocation Requested for FY 2002	2,900,000		rescinded in accordance with the
Programmed Balance to Complete after FY 2002	\$ 5,006,000	100	Consolidated Appropriations Act, 2001.
Unprogrammed Balance to Complete after FY 2002	0		

JUSTIFICATION: The Johnson Creek watershed, which has a drainage area of 21 square miles, lies principally in Tarrant County with a small portion lying in Dallas County. Much of the watershed is extensively developed, being used for industrial, residential, commercial, and recreational activities. The Six Flags Over Texas Amusement Park, the Ballpark at Arlington (Texas Rangers baseball stadium), and the Arlington Convention Center are all located along the banks of Johnson Creek.

A total of 556 structures, with an estimated total value of \$66.6 million, were identified within the Standard Project Flood (SPF) limits of Johnson Creek. Historically, numerous flood events have occurred along Johnson Creek. The flood of record occurred on 16-17 May 1989, which damaged 175 structures and overtopped the eight major bridges by as much as two to five feet. The flood of 26-27 March 1977 inundated about 70 homes, sixty-five families were evacuated, and one person drowned.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Real Estate Acquisition (local sponsor reimbursement)	\$ 2,400,000
Construction Management	500,000
Total	\$ 2,900,000

Division: Southwestern

District: Fort Worth

Project: Johnson Creek, Arlington, Texas
Upper Trinity River Basin

3 April 2001

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NON-FEDERAL COST: In accordance with the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below.

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation and Replacement Costs
Requirements of Local Cooperation		
Provide lands; easements; rights-of-way; relocation payments and assistance to displaced persons; disposal areas for borrow and excavated or dredged material; and modify or relocate utilities roads, bridges and other facilities, where necessary for the construction of the project.	\$6,972,000	0
Pay 35 percent of Flood Damage Reduction	0	\$ 32,700
Pay 35 percent of Ecosystem Restoration	0	17,600
Pay one-half of the separable costs allocated to recreation plus 100 percent of recreation costs above Federal limit.	838,000	55,000
Total Non-Federal Costs	\$ 7,810,000	\$ 105,300

The non-Federal sponsor will make all required payments concurrently with project construction. The non-Federal sponsor will also bear all costs of operation, maintenance, repair, rehabilitation and replacement of project features.

STATUS OF LOCAL COOPERATION: The city of Arlington, Texas, signed the Project Cooperation Agreement (PCA) on 1 December 2000. The city of Arlington will fund the non-Federal portion of this project with the sale of bonds and certificates of obligation by the city of Arlington. The City, through approval of a Section 104 agreement, has already expended \$7,000,000 on the project.

Division: Southwestern

District: Fort Worth

Project: Johnson Creek, Arlington, Texas
Upper Trinity River Basin

3 April 2001

104

COMPARISON OF FEDERAL COST ESTIMATES: The Federal Cost Estimate (Corps of Engineers) of \$13,630,000 has not been previously presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Finding of No Significant Impact was prepared as part of the Environmental Assessment and was signed on 4 September 1998. Fish and wildlife mitigation is not required for this non-structural project.

OTHER INFORMATION: A Section 104, Public Law 99-662, General Credit for Flood Control, was approved by the ASA (CW) on 5 February 1997. Funds to initiate construction were appropriated in FY 2000.

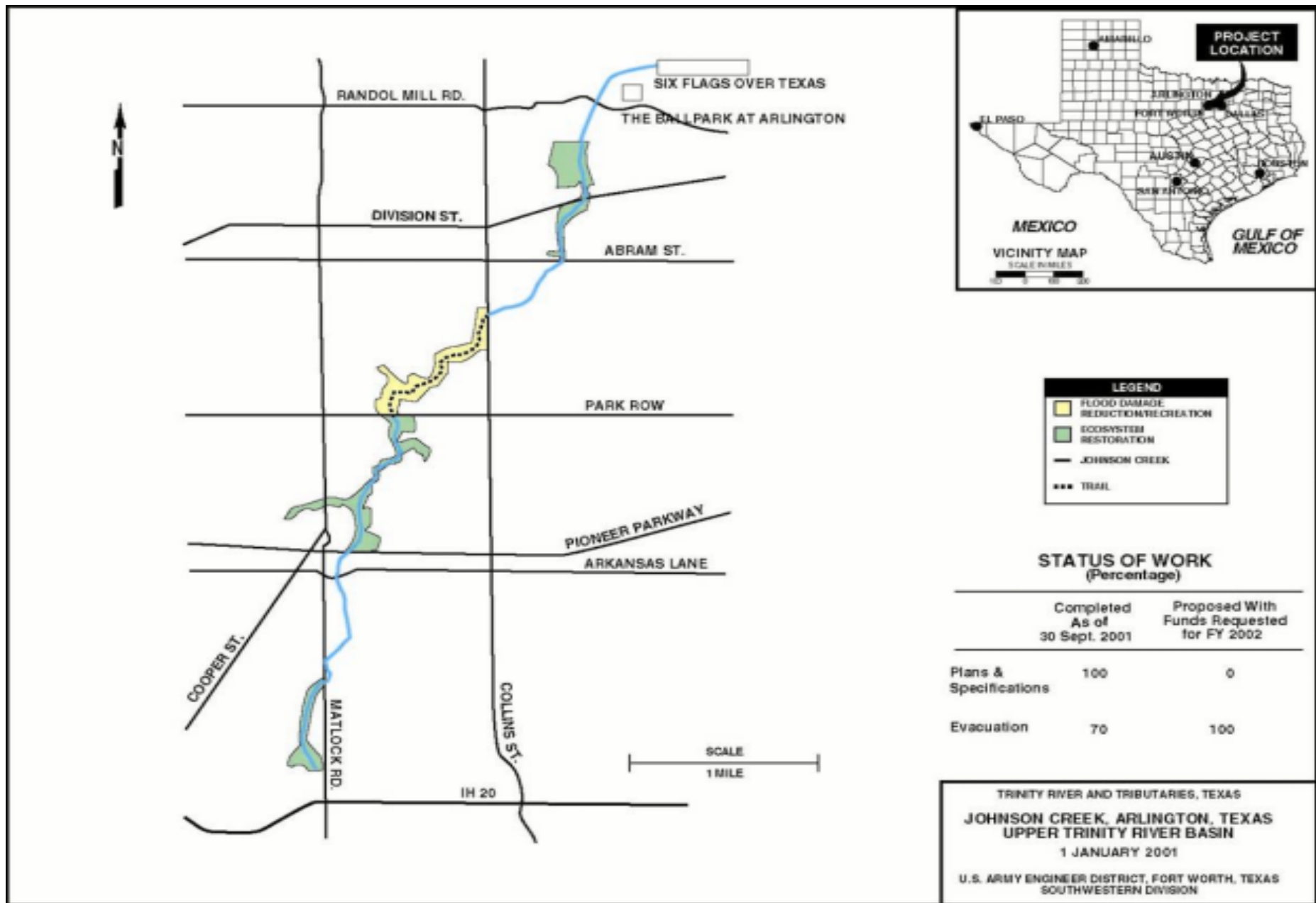
Division: Southwestern

District: Fort Worth

Project: Johnson Creek, Arlington, Texas
Upper Trinity River Basin

3 April 2001

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Division: Southwestern

District: Fort Worth

Project: Johnson Creek, Arlington, Texas
Upper Trinity River Basin

3 April 2001

106

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: San Antonio Channel Improvement, Texas (Continuing)

LOCATION: The project is located in the city of San Antonio, Bexar County, Texas.

DESCRIPTION: The project includes local protection features including channels, levees and two diversion tunnels, and recreation and environmental restoration.

AUTHORIZATION: Flood Control Act of 1954; Water Resources Development Act of 1976, Section 103; Water Resources Development Act of 1996, Section 224; Water Resources Development Act of 2000, Section 335.

REMAINING BENEFIT-REMAINING COST RATIO: 1.2 to 1 at 6-5/8 percent.

TOTAL BENEFIT-COST RATIO: 2.6 to 1 at 2-1/2 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 2-1/2 percent (FY 1957).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in May 1987 at 1999 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$155,300,000	Entire Project	98	Being Determined
Estimated Non-Federal Cost		66,700,000	PHYSICAL DATA		
Cash Contributions	\$ 4,100,000		Channels:	30.7 miles	
Preconstruction,			Concrete drop structure:	one	
Engineering and Design	800,000		Relocations:		
Other Costs	61,800,000		Railroad:	alteration to 11 bridges (\$560,000)	
			Tunnels:		
			San Pedro Creek,	6,040 feet in length	
			San Antonio River,	16,360 feet in length	
Total Estimated Project Cost		\$222,000,000			

Division: Southwestern

District: Fort Worth

Project: San Antonio
Channel Improvement, Texas

3 April 2001

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SUMMARIZED FINANCIAL DATA (Continued)

**ACCUM.
PCT. OF EST.
FED. COST**

Allocations to 30 September 2000	\$152,878,000		
Conference Allowance for FY 2001	900,000		
Allocation for FY 2001	754,000	<u>1/</u>	<u>1/</u> Reflects \$144,000 reduction
Allocations through FY 2001	153,632,000	98	assigned as savings and
Allocation Requested for FY 2002	866,000	99	slippage and \$2,000 rescinded
Programmed Balance to Complete after FY 2002	802,000	100	in accordance with the Consolidated
Unprogrammed Balance to Complete after FY 2002	0		Appropriations Act, 2001.

JUSTIFICATION: The improvements provide a high degree of protection to the metropolitan area of San Antonio which has been subject to disastrous floods and heavy loss of life in the past. Approximately 3,085 acres of urban lands are subject to flooding in San Antonio. Value of land and improvements to be protected from the design flood is estimated at \$1,136,553,000 based on 1999 price levels. The maximum flood of record occurred in September 1921 causing \$949,000 in damages and affected areas totaling 2,900 acres. A recurrence of this flood under current conditions and October 1999 price levels would result in damages estimated at \$76,675,900 of which \$75,050,300 would be prevented with the project in full operation. In August 1992 the completed portions of the project prevented an additional \$11,300,000 in damages. On 17 October 1998 almost 10 inches of rain fell in 17 hours at the San Antonio International Airport, breaking the city's one-day rainfall record of 6.8 inches set in 1921. Little damage was experienced within the project areas while 11 deaths and \$115 million in damages occurred elsewhere in the city. The estimated average annual benefits, based on October 1999 price levels, are as follows:

Annual Benefits	Amount
Flood Damage Reduction	\$ 18,321,900
Land Enhancement	1,245,000
Total	\$ 19,566,900

Division: Southwestern

District: Fort Worth

**Project: San Antonio
Channel Improvement, Texas**

3 April 2001

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FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue General Reevaluation Study for environmental restoration and recreation and continue pre-design of Unit 8-5-2 Planning, Engineering and Design	\$ 775,000 91,000
Total	\$ 866,000

NON-FEDERAL COST: In accordance with the authorizing act, Flood Control Act of 1954, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands; easements; rights-of-way; relocation payments and assistance to displaced persons; disposal areas for borrow and excavated or dredged material; and modify or relocate utilities, roads, bridges and other facilities, where necessary for the construction of the project.	\$ 16,541,000	
Modify and relocate/reconstruct channel dams, bridges and utilities.	32,846,000	
Channel rectification.	12,413,000	
Pay 2.65 percent of Federal construction costs, based on land enhancement benefits, and bear all costs of operation, maintenance and replacement of flood control facilities.	4,100,000	\$ 800,000
Pay 50 percent of a General Reevaluation Study to investigate the feasibility of incorporating environmental restoration and recreation improvements into the project.	800,000	
Total Non-Federal Costs	\$ 66,700,000	\$ 800,000

Division: Southwestern

District: Fort Worth

**Project: San Antonio
Channel Improvement, Texas**

3 April 2001

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Requirements of Local Cooperation (Continued)

The non-Federal Sponsor has also agreed to make all required payments concurrently with project construction. The non-Federal sponsor will also bear all costs of operation, maintenance, repair, rehabilitation and replacement of project features. An agreement is being negotiated with the sponsor to cost-share a General Reevaluation Study.

STATUS OF LOCAL COOPERATION: The San Antonio River Authority, a State agency, by a resolution passed on 28 February 1956, agreed to comply with all the requirements of local cooperation. This was supplemented by an agreement dated 14 January 1972, which addressed the authorizing requirements of Public Law 91-646. Under a contract of 12 September 1955, the Authority was authorized to expend \$12,000,000 on capital improvements; however, due to continuous increase in cost of construction and relocations, added channel improvement below Bergs Mill, increased land values, and local interest costs required by the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970, and the addition of a General Reevaluation Study for environmental restoration and recreation, it is estimated that \$66,700,000 will now be required. The Water Resources Development Act of 2000, Section 335, added environmental restoration and recreation as project purposes. Cash contributions in the amount of \$4,049,000 have been received from the Authority through September 2000 in compliance with requirements of the Flood Control Act of 1954. Rights-of-way have been furnished as required for construction performed to date. Relocations for Unit 8-5-2 remain to be completed prior to construction in FY 2002. Thus far, local interests have expended approximately \$65,649,000 for lands, required modifications of utilities and bridges, channel modification, relocation/reconstruction of channel dams, payments required for relocation assistance, and required cash contributions.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$155,300,000 is an increase of \$800,000 over the latest estimate (\$154,500,000) submitted to Congress (FY 2001). This change funds the Government's share of a General Reevaluation Study for environmental restoration and recreation.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 9 November 1971. The final Supplemental Environmental Impact Statement for Unit 8-3-2 was filed with the Environmental Protection Agency on 13 February 1981. An Environmental Assessment for the tunnels on Units 8-4, 8-5-1, and 7-3-1 resulted in a Finding Of No Significant Impact which was signed by the District Engineer 20 May 1986. The Environmental Assessment was supplemented to reflect the addition of some channelization at the San Antonio River Tunnel Outlet and resulted in a Finding of No Significant Impact, which was signed on 13 April 1995. Also, an Environmental Assessment for San Pedro Creek Unit 7-3-2 resulting in a Finding of No Significant Impact was signed by the District Engineer on 13 August 1993. Following plan formulation, an Environmental Assessment will be performed in Fiscal Year 2001 for the proposed improvements on Unit 8-5-2. During the General Reevaluation Study, an environmental assessment will also be conducted if further improvements are recommended.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in Fiscal Year 1956 and for construction in Fiscal Year 1957.

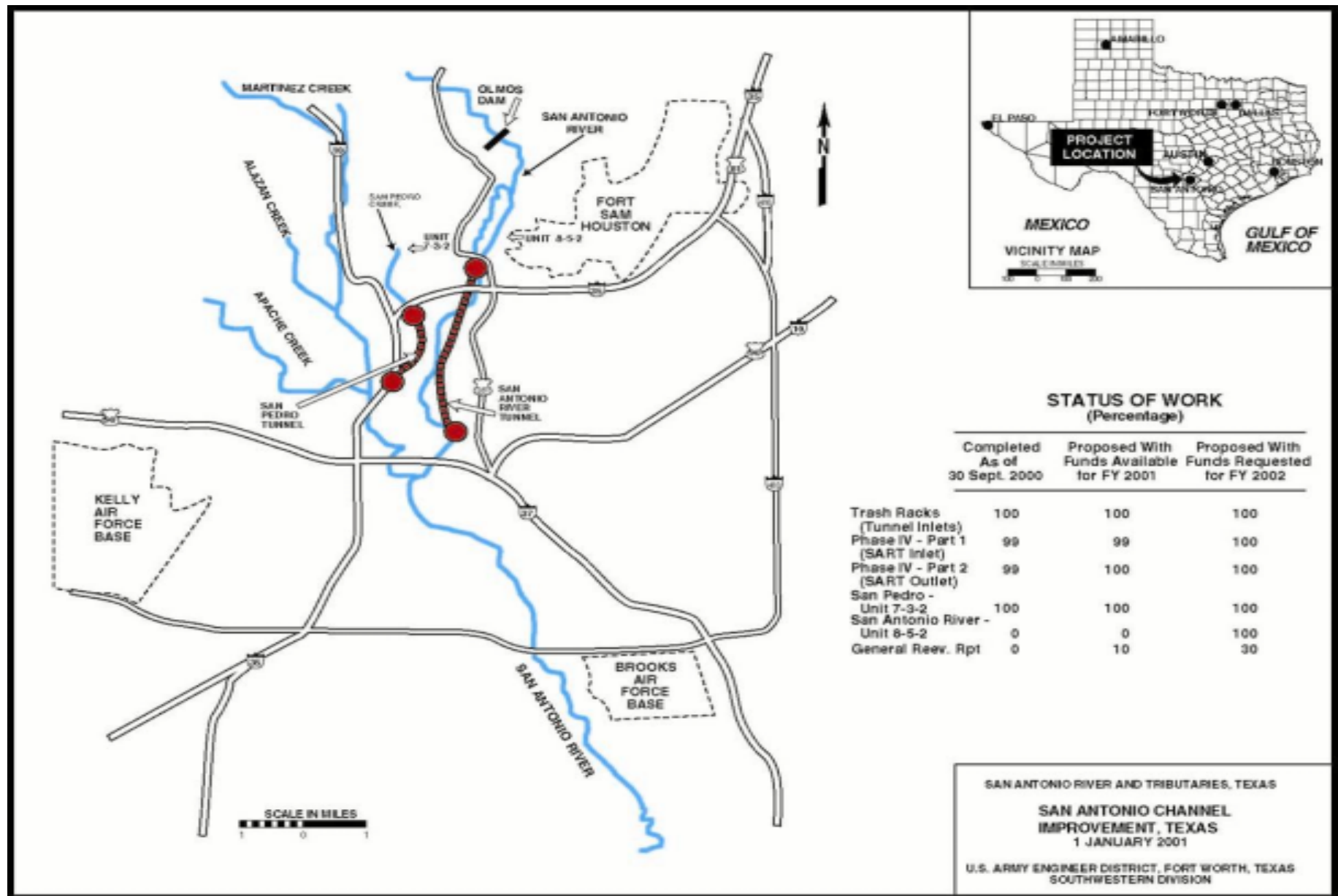
Division: Southwestern

District: Fort Worth

Project: San Antonio
Channel Improvement, Texas

3 April 2001

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Division: Southwestern

District: Fort Worth

Project: San Antonio
 Channel Improvement, Texas

3 April 2001

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APPROPRIATION TITLE: Construction General - Local Protection (Flood Control)

PROJECT: Sims Bayou, Houston, TX (Continuing)

LOCATION: The project is located in Harris County, in the southern portion of Houston, Texas.

DESCRIPTION: The project provides flood damage reduction and consists of 19.3 miles of channel enlargement, rectification, and erosion control measures. Environmental quality measures, riparian habitat improvements, and recreational features are also included in the project.

AUTHORIZATION: Water Resources Development Act (WRDA) of 1986, Energy and Water Development Appropriations Act of 1990, and WRDA of 1992.

REMAINING BENEFIT-REMAINING COST RATIO: 7.0 to 1 at 8 5/8 percent.

TOTAL BENEFIT-COST RATIO: 6.8 to 1 at 8 5/8 percent.

INITIAL BENEFIT-COST RATIO: 9.3 to 1 at 8 5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: Benefits are from Supplement 1 to the General Design Memorandum dated May 1993 at October 1992 price levels. Costs are based on the GDM Supplement 1 at October 1992 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	225,752,000		Entire Project	35	Being Determined
Estimated Non-Federal Cost	110,448,000				
Cash Contribution	19,788,000				
Other Costs	90,660,000				
PHYSICAL DATA					
Total Estimated Project Cost	336,200,000		Channels:		
			Sims Bayou - 19.3 miles		
			Relocations:		
Allocations to 30 September 2000	82,202,000		Railroad bridges		
Conference Allowance for FY 2001	11,820,000		Utilities		
Allocation for FY 2001	7,856,000	1/	Roads		
Allocations through FY 2001	90,058,000	40%	Recreation facilities:		
Allocation Requested for FY 2002	9,000,000	44%	Hike-and-bike trails		
Programmed Balance to Complete after FY 2002	126,694,000		with picnic and other		
Unprogrammed Balance to Complete after FY 2002	0		day-use facilities		

1/ Reflects \$1,891,000 reduction assigned as savings and slippage, \$2,050,000 reprogrammed from the project, and \$23,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The project will eliminate stream flooding from 14,800 acres of urban lands and beneficially affect nearly 78,000 persons living in 29,000 homes. The 100-year flood plain would be reduced to 2,300 acres outside the required rights-of-way. The recreational development will partially satisfy existing demand in the area. Average annual benefits, annualized at an 8-5/8% interest rate and based on October 1992 prices are as follows:

Annual Benefits	Amount
Flood Damage Prevention	219,344,700
Recreation	945,300
Total	220,290,000

Division: Southwestern

District: Galveston

Project: Sims Bayou, Houston, Texas

3 April 2001

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FISCAL YEAR 2002: The requested amount of \$9,000,000 will be applied as follows:

Complete channel rectification - Swallow to Northdale	\$2,000,000
Complete channel rectification - Mouth to PTRR	3,000,000
Complete channel rectification - Mykawa to Cullen	2,000,000
Reimbursement to Project Sponsor	300,000
Planning, Engineering, and Design	900,000
Construction Management	800,000
 Total	 \$9,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	40,090,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	50,270,000	
Pay one-half of the separable costs allocated to recreation and bear all cost of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	3,310,000	139,000
Pay 5 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	16,478,000	331,000
Credit for future preparation of the dredged material disposal area for the Mouth to PTRR reach and completed miscellaneous engineering and design activities.	300,000	
Total Non-Federal Costs	110,448,000	470,000

The non-Federal sponsors must also agree to make all required payments concurrently with project construction.

Division: Southwestern

District: Galveston

Project: Sims Bayou, Houston, Texas

3 April 2001

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STATUS OF LOCAL COOPERATION: The sponsor for the flood control project is Harris County. The current non-Federal cost estimate of \$110,448,000 for flood control, which includes a cash contribution of \$19,788,000, is an increase of \$23,848,000 from the non-Federal cost estimate of \$86,600,000 noted in the Local Cooperation Agreement (LCA), which reflected a cash contribution of \$13,800,000. In a letter dated 19 September 1991, the non-Federal sponsor indicated that it is financially capable and willing to contribute the increased non-Federal share. Analysis (dated 31 October 1991) of the non-Federal sponsor's financial capability to participate in the project reaffirms that the sponsor has a reasonable and implementable plan for meeting their financial commitment as expressed in the LCA. In 1993, the City of Houston indicated its desire to sponsor the recreation features for the project. In April 1999 the City provided a letter indicating its renewed interest in sponsorship. Coordination has been initiated for a Limited Reevaluation Report and the Project Cooperation Agreement for the recreation features.

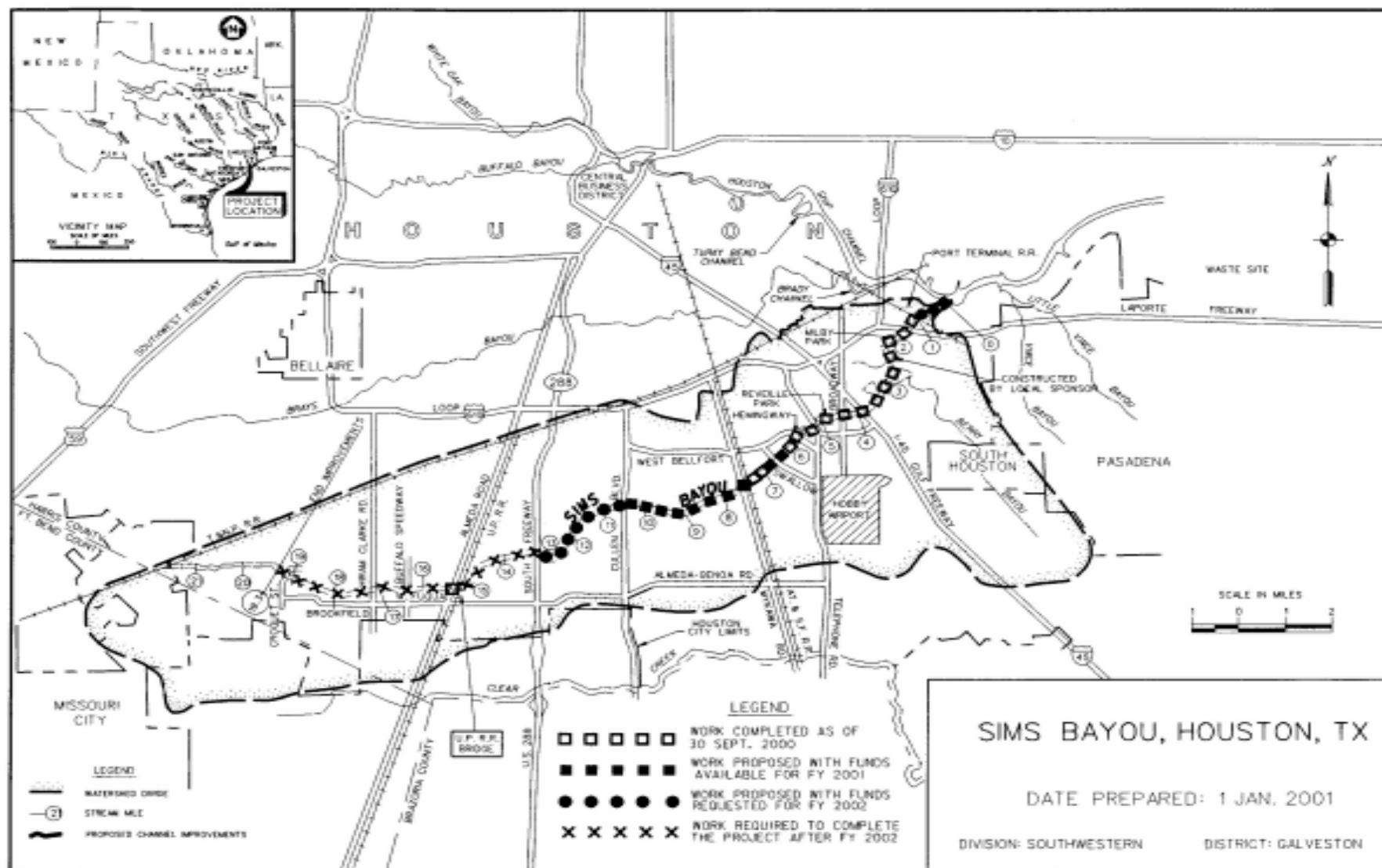
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$225,752,000 is an increase of \$5,665,000 from the latest estimate (\$220,087,000) presented to Congress (FY 2001). This change includes the following items.

Item	Amount
Post Contract Award and Other Estimating Adjustments	(+) \$1,847,000
Price Escalation on Construction Features	(+) 3,818,000
Total	(+) \$5,665,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency in September 1983.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in Fiscal Year 1986 and funds to initiate construction were appropriated in Fiscal Year 1990.

The Assistant Secretary of the Army for Civil Works has approved the sponsor's request for credit for work performed by the local sponsor. This credit is currently estimated at \$20,070,000, exclusive of lands and is being reimbursed during the period of construction. The project authorization was amended by the Energy and Water Development Appropriations Act of 1990 as the project cost estimate exceeded the maximum cost growth as described in Section 902 of the Water Resources Development Act of 1986. The authorization has been further modified by WRDA '92, Section 102 (bb), to include, to the extent practicable, measures to improve environmental quality and riparian habitat.



Division: Southwestern

District: Galveston

Project: Sims Bayou, Houston, Texas

3 April 2001

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APPROPRIATION TITLE: Construction, General - Dam Safety Assurance.

PROJECT: Skiatook Lake, Oklahoma, (Continuing).

LOCATION: The project is located on Hominy Creek about 5 miles west of Skiatook in Osage County, Oklahoma.

DESCRIPTION: The study area consists of the reservoir area above Skiatook Dam up to the maximum pool caused by Probable Maximum Flood (PMF) inflow, the spillway channel, the Hominy Creek floodplain to its confluence with Bird Creek, and the Bird Creek floodplain to its confluence with the Verdigris River at Catoosa, Oklahoma. The most pertinent parts of the study area are the towns of Sperry and Turley; however, the affected area includes portions of Skiatook, Tulsa, and Owasso.

Dam construction began in May 1977 and ended in July 1985. Reservoir impoundment began 31 October 1984. The project consists of a rolled earthfill embankment; a gate tower controlling flow through an outlet tunnel, an outlet works and outlet channel; and an uncontrolled limited service spillway excavated through the narrow right abutment ridge. The existing spillway will be lined with a structural concrete slab and sloped, tie back concrete walls, and a 100-foot-wide concrete lined chute will be constructed approximately 939 feet long to prevent headcutting erosion of the spillway. The relatively high uplift pressure resulting from seepage through the joints of the sandstone of the Chanute formation will be resisted by drainage and anchor bars drilled 10 feet into the foundation rock below the floor slab. Sections of concrete gravity walls will be required where the excavation is not deep enough for the sloped, tie back walls to be founded on firm material.

AUTHORIZATION: Flood Control Act of 1962.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable.

INITIAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

Division: Southwestern

District: Tulsa

Project: Skiatook Lake, Oklahoma
(Dam Safety)

3 April 2001

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SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Original Project			Entire Project	0	Being Determined
Actual Federal Cost	106,268,738				
Actual Non-Federal Cost	0				
Cash Contributions	0				
Other Costs	0				
Total Original Project Cost	106,268,738				
Remedial Work or Project Modification					
Estimated Federal Cost	10,000,000				
Estimated Non-Federal Cost	0				
Cash Contributions	0				
Other Costs	0				
Total Estimated Remedial or Modification Cost	10,000,000				
Total Estimated Project Cost	116,268,738				
Allocations to 30 September FY 2000	783,000				
Conference Allowance for FY 2001	2,400,000				
Allocation for FY 2001	445,000 <u>1/</u>				
Allocations through FY 2001	1,228,000	12			
Allocation Requested for FY 2002	1,800,000	30			
Programmed Balance to Complete	6,972,000				
Unprogrammed Balance to Complete after FY 2002	0				

1/ Reflects \$384,000 reduction assigned as savings and slippage, \$1,566,000 reprogrammed from the project, and \$5,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

Division: Southwestern

District: Tulsa

Project: Skiatook Lake, Oklahoma
(Dam Safety)

3 April 2001

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JUSTIFICATION: Recent hydrologic analysis revealed that the spillway would suffer extensive erosion and ultimately catastrophically breach if the PMF were to occur. Such a condition would cause major flooding, including the possibility of loss of human life in the downstream communities of Skiatook and Sperry. According to the approved Dam Safety Assurance Program Evaluation Report, the downstream effect of a PMF event with accompanying dam failure includes approximately \$70,000,000 of economic loss and an adverse effect to approximately 10,600 residents.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Construction	\$ 1,541,000
Planning, Engineering, and Design	100,000
Construction Management	159,000
Total	\$ 1,800,000

NON-FEDERAL COST: Not applicable.

STATUS OF LOCAL COOPERATION: Not applicable.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$10,000,000 is an increase of \$300,000 from the latest estimate (\$9,700,000) presented to Congress (FY 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	(+) 300,000
Total	\$ 300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Not required.

The provisions of Section 404 of the Clean Water Act do not apply because the project improvements do not involve the placement of fill material or the discharge of dredge material in the waters of the United States.

OTHER INFORMATION: A Dam Safety Assurance Program Evaluation Report was approved in August 1997.

Division: Southwestern

District: Tulsa

Project: Skiatook Lake, Oklahoma
(Dam Safety)

3 April 2001

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APPROPRIATION TITLE: Construction, General - Dam Safety Assurance

PROJECT: Table Rock Lake, Missouri and Arkansas, (Continuing)

LOCATION: Table Rock Dam is located on the White River 528.8 miles above its mouth, in Stone and Taney Counties in southwest Missouri near the city of Branson.

DESCRIPTION: Table Rock Dam has been shown to be hydrologically deficient, with storage available to contain 65 percent of the Probable Maximum Flood (PMF). Studies indicate that this flood would overtop the dam more than five feet and would breach the earthen embankment portion of the dam, causing catastrophic flood conditions for downstream areas including Branson. The project consists of the design and construction of an auxiliary gated spillway located just downstream of the existing left embankment, which will serve as a cofferdam during construction. The project includes the construction of a bridge to cross the spillway and a slight realignment of State Highway 165/265 on top of the existing dam. Coordination is ongoing with the Missouri Highway and Transportation Department.

AUTHORIZATION: Flood Control Acts of 1938, 1941 and 1944.

REMAINING BENEFITS-REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not Applicable.

INITIAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Original Project		Entire Project	22	Being Determined
Actual Federal Cost	\$16,233,000			
Actual Non-Federal Cost	49,867,000			
Cash Contributions	0			
Hydropower Reimbursement	49,867,000			
Total Original Project Cost	66,100,000			
Division: Southwestern	District: Little Rock			Project: Table Rock Lake Missouri and Arkansas (Dam Safety Assurance)

SUMMARIZED FINANCIAL DATA (CONTINUED)

**ACCUM
PCT OF EST
FED COST**

Remedial Work or Project Modification

Estimated Total Appropriation Requirement	\$60,200,000		
Future Non-Federal Reimbursement	6,225,000		
Estimated Federal Cost (Ultimate)	53,975,000		
Estimated Non-Federal Cost	6,225,000		
Reimbursement	6,225,000		
Hydropower	\$6,225,000		
Total Estimated Project Cost	\$60,200,000		
Allocations to 30 September 2000	\$13,349,000		
Conference Allowance for FY 2001	5,920,000		
Allocation for FY 2001	7,161,000	<u>1/</u>	
Allocations through FY 2001	20,510,000	34	
Allocation Requested for FY 2002	5,900,000	44	
Programmed Balance to Complete	33,790,000		
Unprogrammed Balance to Complete After FY 2002	0		

1/ Reflects \$947,000 reduction assigned as savings and slippage, \$2,200,000 reprogrammed to the project, and \$12,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

PHYSICAL DATA: The dam, which was started in October 1952 and completed in November 1958, consists of a 1,602 foot concrete gravity section and two earth fill embankment structures with a length of 4,821 feet. Total length of the dam is 6,423 feet rising to a maximum height of 252 feet above the streambed. The structure has four 4 foot by 9 foot sluices. The gated emergency spillway consists of ten bays, each 45 feet wide, controlled by 37-foot high tainter gates. The dam contains four 50,000-kw power units, each supplied by an 18-foot diameter penstock. Storage is provided in the reservoir for water supply, flood control, and generation of hydroelectric power. The original plan of improvement was to raise the top of the existing dam by ten feet. The current plan is to provide an auxiliary gated spillway in place of part of the existing earthen embankment on the left side, looking downstream. This gated emergency spillway consists of eight bays, each 48 feet wide, controlled by 43-foot high tainter gates.

Division: Southwestern

District: Little Rock

**Project: Table Rock Lake
Missouri and Arkansas
(Dam Safety Assurance)**

JUSTIFICATION: The Program Evaluation Report of December 1994 found that the existing spillway would not safely pass the probable maximum flood without overtopping the dam; therefore, structural modifications to increase the reservoir capacity are recommended. It has been determined that this flood would overtop the dam by more than five feet and that failure of the earthen portion of the dam would occur.

A Table Rock Dam failure would cause about \$363 million of downstream damages. Damages would consist of \$171 million to commercial and residential structures, \$44.4 million to recreation facilities, \$46 million to roads and bridges, \$95 million to hydropower facilities at Table Rock and Bull Shoals projects and \$6.3 million to the Shepherd of the Hills Fish Hatchery. In addition, Table Rock Lake Project is estimated to generate \$106 million annually from project purposes of flood control, recreation, and hydropower. These benefits would be lost if the dam were to fail. A failure of the dam could put 12,400 people at risk to injury and death with major damages to the city of Branson, Missouri.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Construction on Auxiliary Gates Spillway	\$ 4,878,000
Planning, Engineering and Design	150,000
Construction Management	872,000
Total	\$ 5,900,000

NON-FEDERAL COST: The non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay all costs allocated to hydropower and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of hydropower facilities.	\$6,225,000	\$0
Total Non-Federal Costs	\$6,225,000	\$0

STATUS OF LOCAL COOPERATION: The Southwestern Power Administration has been contacted and understands the requirement for reimbursement of costs allocated to power.

Division: Southwestern

District: Little Rock

Project: Table Rock Lake
Missouri and Arkansas
(Dam Safety Assurance)

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$60,200,000 is the same as last submitted to Congress (FY 2001).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Finding of No Significant Impact was signed in October 1997.

OTHER INFORMATION: The initial Planning and Engineering was accomplished using Operation and Maintenance, General funds.

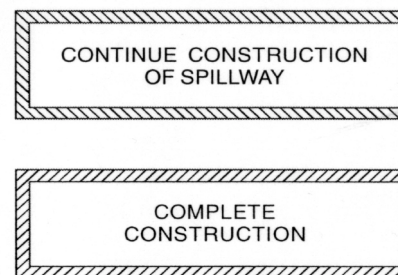
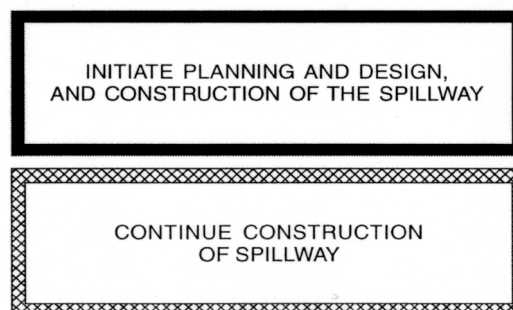
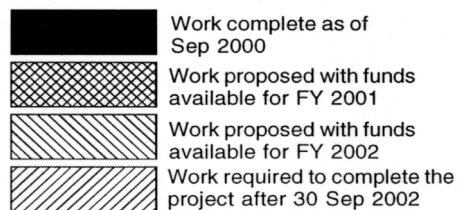
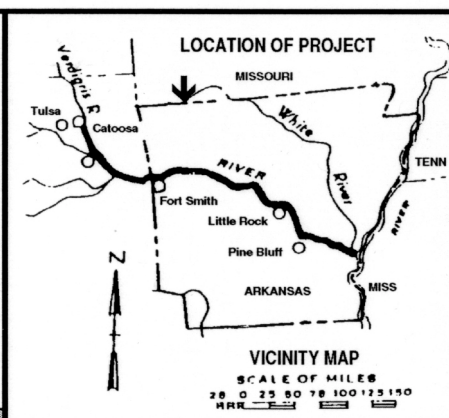
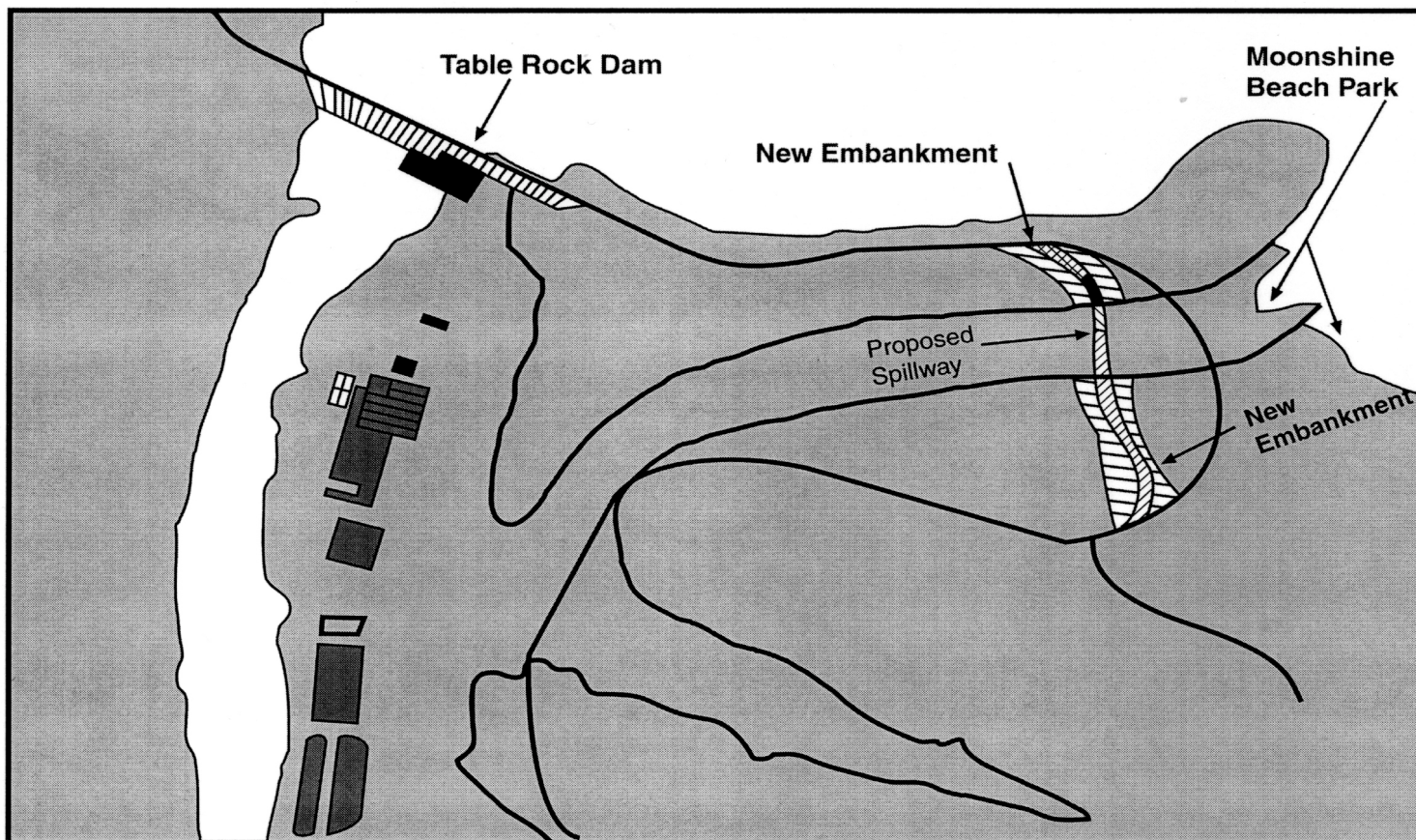
Division: Southwestern

District: Little Rock

Project: Table Rock Lake
Missouri and Arkansas
(Dam Safety Assurance)

3 April 2001

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WHITE RIVER BASIN
TABLE ROCK LAKE
MISSOURI AND ARKANSAS
(DAM SAFETY)

U.S. ARMY ENGINEER DISTRICT LITTLE ROCK
U.S. ARMY ENGINEER DIVISION, SOUTHWESTERN

1 JANUARY 2001

Division: Southwestern

District: Little Rock

Project: Table Rock Lake
Missouri and Arkansas
(Dam Safety Assurance)

3 April 2001

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APPROPRIATION TITLE: Construction, General - Dam Safety Assurance

PROJECT: Tenkiller Ferry Lake, Oklahoma (Continuing)

LOCATION: The project is located on the Illinois River about 7 miles northeast of Gore and about 22 miles southeast of Muskogee, Oklahoma.

DESCRIPTION: The study area consists of the reservoir area above Tenkiller Ferry Dam up to the maximum pool caused by PMF inflow, the Illinois River floodplain from Tenkiller Ferry Dam to the Arkansas River, and the Arkansas River flood plain from Webbers Falls Lock and Dam to a point just below Fort Smith and Van Buren, Arkansas, including R. S. Kerr and W. D. Mayo reservoirs and navigation structures.

AUTHORIZATION: Flood Control Act of 1938.

BENEFIT-COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable.

INITIAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Original Project			Entire Project	26	Being Determined
Actual Federal Cost		\$ 24,057,718			
Actual Non-Federal Cost		0			
Cash Contributions	\$	0			
Other Costs		0			
Total Original Project Cost		\$ 24,057,718			

Division: Southwestern

District: Tulsa

Project: Tenkiller Ferry Lake
Oklahoma (Dam Safety)

3 April 2001

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SUMMARIZED FINANCIAL DATA (Continued):

**ACCUM
PCT. OF EST.
FED. COST**

Project Modification		
Estimated Federal Cost	\$ 39,300,000	
Estimated Non-Federal Cost	0	
Cash Contribution	\$ 0	
Other Costs	0	
Total Estimated Modification Cost	\$ 39,300,000	
 Total Estimated Project Cost	 \$ 63,657,718	
 Allocations to 30 September 2000	 8,535,000	
Conference Allowance for FY 2001	4,500,000	
Allocation for FY 2001	7,780,000 <u>1/</u>	
Allocations through FY 2001	16,315,000	42
Allocation Requested for FY 2002	3,700,000	51
Programmed Balance to Complete	19,285,000	
Unprogrammed Balance to Complete after FY 2002	0	

1/ Reflects \$720,000 reduction assigned as savings and slippage, \$4,009,000 reprogrammed to the project, and \$9,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

PHYSICAL DATA: Construction began in June 1947. Embankment closure was completed in May 1952. The dam consists of an earthfill embankment approximately 3,000 feet in length, an earthfill dike about 1,350 feet in length and with a gated concrete gravity spillway located on the right abutment. Ten tainter gates 50 feet wide by 24 feet high regulate lake releases through the spillway. The low flow control outlet is a 19-foot diameter conduit with two service gates. The top of dam is at elevation 677.2.

An auxiliary spillway with five 50 feet wide by 35 feet high tainter gates would be constructed near the right abutment of the embankment. This spillway structure has been designed similar to the existing spillway.

Division: Southwestern

District: Tulsa

Project: Tenkiller Ferry Lake
Oklahoma (Dam Safety)

3 April 2001

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JUSTIFICATION: The spillway is inadequate to pass the probable maximum flood, and if it occurred, the embankment would be overtopped for a duration of 30 hours at a peak elevation of approximately 683.5 feet. The existing spillway would pass about 85 percent of the probable maximum flood with no freeboard. If the probable maximum flood occurred and overtopping caused dam failure, severe economic damage would be incurred downstream. According to the approved Dam Safety Assurance Program Recon Report, the downstream effect of a PMF event with accompanying dam failure, would include approximately \$298,000,000 of economic loss and an adverse effect on approximately 9,000 residents.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue Construction	\$ 3,188,000
Planning, Engineering & Design	224,000
Construction Management	288,000
Total	\$ 3,700,000

NON-FEDERAL COST: Not applicable.

STATUS OF LOCAL COOPERATION: Not applicable.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$39,300,000 is an decrease of \$500,000 from the latest estimate (\$39,800,000) presented to Congress (FY 2001). This change includes the following items:

Item	Amount
Post Contract Award and Other Estimating Adjustments	(-)\$ 2,826,000
Price Escalation on Construction Features	(+) 2,326,000
Total	(-)\$ 500,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Not required.

The provisions of Section 404 of the Clean Water Act do not apply because the project improvements do not involve the placement of fill material or the discharge of dredge material in the waters of the United States.

OTHER INFORMATION: A feature design memorandum was completed in September 1995. Plans and specifications for Phase I were completed in December 1998. The Phase 1 contract was awarded in May 1999.

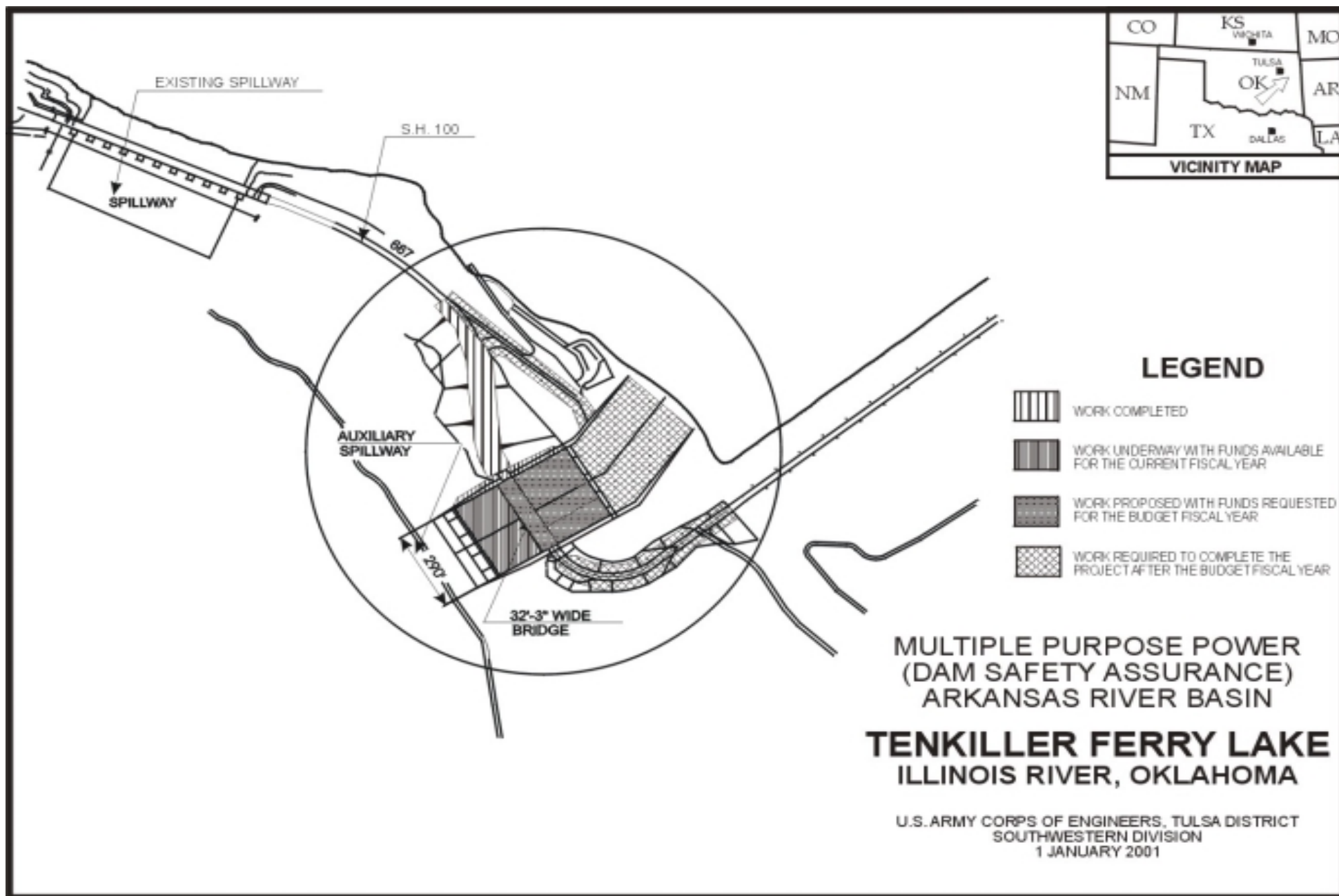
Division: Southwestern

District: Tulsa

Project: Tenkiller Ferry Lake
Oklahoma (Dam Safety)

3 April 2001

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Division: Southwestern

District: Tulsa

Project: Tenkiller Ferry Lake
Oklahoma (Dam Safety)

3 April 2001

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**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

1. Navigation

a. Channels and Harbors

The budget estimate of \$64,104,000 provides for essential operation and maintenance work on the 12 channel and harbor projects named in the list which follows. The work to be accomplished under this activity consists of operating and maintaining the coastal navigation channels, harbors and anchorages by means of dredging, constructing bulkheads and spoil disposal areas, snagging, and repairing channel stabilization works, navigation structures, and harbor jetties, all as authorized in the laws pertaining to river and harbor projects.

<u>ESTIMATED OBLIGATIONS (\$)</u>			
<u>State</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>Project Name</u>	<u>Total</u>	<u>Total</u>	
	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
<u>Texas</u>			
Barbour Terminal Ship			
Channel	314,000	577,000	
	(0)	(0)	1. None.
	(314,000)	(577,000)	2. None.
Bayport Ship Channel	1,810,000	2,275,000	
	(0)	(0)	1. None.
	(1,810,000)	(2,275,000)	2. Dredge navigation channel.
Brazos Island Harbor	4,802,000	1,222,000	
	(0)	(0)	1. None.
	(4,802,000)	(1,222,000)	2. Dredge navigation channel.
Corpus Christi Ship Channel	5,036,000	5,399,000	
	(0)	(0)	1. None.
	(5,036,000)	(5,399,000)	2. Dredge navigation channel.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

1. Navigation (Continued)

a. Channels and Harbors (Continued)

<u>State</u> Project Name	<u>ESTIMATED OBLIGATIONS (\$)</u>		<u>Reason for Change and Major Maintenance Items</u>
	<u>FY 2001</u> Total (Operations) (Maintenance)	<u>FY 2002</u> Total (Operations) (Maintenance)	
			1. Reasons for change in Operations from FY01 to FY02(10%+/-) 2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/> <u>Texas (Continued)</u>			
Freeport Harbor	4,802,000	6,950,000	
	(0)	(0)	1. None.
	(4,802,000)	(6,950,000)	2. Dredge entrance and the navigation channel.
Galveston Harbor and Channel	87,000	130,000	
	(0)	(0)	1. None.
	(87,000)	(130,000)	2. None.
GIWW - Channel to Victoria	752,000	585,000	
	(462,000)	(370,000)	1. Complete archeology report initiated in FY 2001.
	(290,000)	(215,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

1. Navigation (Continued)

a. Channels and Harbors (Continued)

<u>State</u> Project Name	<u>ESTIMATED OBLIGATIONS (\$)</u>		<u>Reason for Change and Major Maintenance Items</u>
	FY 2001 Total (Operations) (Maintenance)	FY 2002 Total (Operations) (Maintenance)	
			1. Reasons for change in Operations from FY01 to FY02(10%+/-) 2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/> <u>Texas (Continued)</u>			
Gulf Intracoastal Waterway	21,765,000 (4,538,000)	19,994,000 (2,835,000)	1. Extend timeline for major environmental studies for the Laguna Madre and dredged material management plan initiated prior to FY 2002. 2. Dredge various reaches of the navigation channel and repair Brazos River floodgates.
	(17,227,000)	(17,159,000)	
Houston Ship Channel	8,137,000 (0) (8,137,000)	7,555,000 (0) (7,555,000)	1. None. 2. Dredge navigation channel.
Matagorda Ship Channel	4,315,000 (0) (4,315,000)	1,665,000 (0) (1,665,000)	1. None. 2. None.
Mouth of Colorado River	2,953,000 (30,000) (2,923,000)	2,480,000 (30,000) (2,450,000)	1. None. 2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

1. Navigation (Continued)

a. Channels and Harbors (Continued)

<u>State</u> Project Name	<u>ESTIMATED OBLIGATIONS (\$)</u>		<u>Reason for Change and Major Maintenance Items</u>
	FY 2001 Total (Operations) (Maintenance)	FY 2002 Total (Operations) (Maintenance)	
			1. Reasons for change in Operations from FY01 to FY02(10%+/-) 2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
<u>Texas (Continued)</u>			
Sabine-Neches Waterway	10,013,000	14,272,000	
	(16,000)	(14,000)	1. None.
	(9,997,000)	(14,258,000)	2. Dredge navigation channel.
Trinity River and Tributaries	0 (0) (0)	1,000,000 (0) (1,000,000)	1. None. 2. Dredge navigation channel.
Other Projects Maintained	3,832,000	0	
Periodically (Includes	(0)	(0)	1. None.
Channel to Port Mansfield,(3,832,000)		(0)	2. None.
Channel to Harlingen, Double Bayou, and Texas City)			
	=====	=====	
Total Channels and Harbors	68,618,000	64,104,000	
	(5,046,000)	(3,249,000)	
	(63,572,000)	(60,855,000)	

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

1. Navigation (Continued)

b. Locks and Dams

The budget estimate of \$25,363,000 provides for essential operation and repairs on one system containing 13 locks and dams. Included are: labor, supplies, materials and parts for day-to-day functioning; and periodic dredging, maintenance, repairs, or replacements of channels and structures. The requested amount also includes application of Special Recreation Use Fees (SRUF) for recreation areas.

		<u>ESTIMATED OBLIGATIONS (\$)</u>		
		FY 2001	FY 2002	
<u>State</u>	<u>Total</u>	<u>Total</u>		<u>Reason for Change and Major Maintenance Items</u>
Project Name	(Operations)	(Operations)		1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)		2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>				
<u>Arkansas and Oklahoma</u>				
McClellan-Kerr Arkansas				
River Navigation System	24,576,000	25,363,000		
	(13,334,000)	(15,620,000)		1. Increased operation expense for new project, Montgomery Point Lock and Dam.
	(11,242,000)	(9,743,000)		2. Rehabilitate and paint tainter gates. Install haulage equipment.
Total - Locks and Dams	24,576,000	25,363,000		
	(13,334,000)	(15,620,000)		
	(11,242,000)	(9,743,000)		
	=====	=====		
TOTAL - NAVIGATION	93,194,000	89,467,000		
	(18,380,000)	(18,869,000)		
	(74,814,000)	(70,598,000)		

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control

a. Reservoirs

The budget estimate of \$83,590,000 provides for the operation and ordinary maintenance of the 63 projects named in the list which follows, and the scheduling of reservoir flood control operations in the Southwestern Division. Included are: labor, supplies, materials and parts for day-to-day functioning. The requested amount also includes application of Special Recreation Use Fees (SRUF) for recreation areas.

<u>State</u> Project Name	<u>ESTIMATED OBLIGATIONS (\$)</u>		<u>Reason for Change and Major Maintenance Items</u>
	FY 2001 Total (Operations) (Maintenance)	FY 2002 Total (Operations) (Maintenance)	
			1. Reasons for change in Operations from FY01 to FY02 (10%+/-) 2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/> <u>Arkansas</u>			
Blue Mountain Lake	1,200,000 (824,000) (376,000)	1,148,000 (908,000) (240,000)	1. None. 2. None.
DeQueen Lake	1,058,000 (667,000) (391,000)	947,000 (723,000) (224,000)	1. None. 2. None.
Dierks Lake	988,000 (689,000) (299,000)	946,000 (765,000) (181,000)	1. Increased operations for flood damage reduction and management of recreation areas. 2. None.
Gillham Lake	929,000 (671,000) (258,000)	841,000 (689,000) (152,000)	1. None. 2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2001	FY 2002	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>Project Name</u>	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)

Arkansas (Continued)

Millwood Lake	1,602,000	1,559,000	
	(948,000)	(981,000)	1. None.
	(654,000)	(578,000)	2. None.
Nimrod Lake	1,416,000	1,319,000	
	(1,022,000)	(1,077,000)	1. None.
	(394,000)	(242,000)	2. None.

Kansas

Council Grove Lake	1,197,000	1,116,000	
	(831,000)	(763,000)	1. None.
	(366,000)	(353,000)	2. None.
El Dorado Lake	487,000	478,000	
	(390,000)	(379,000)	1. None.
	(97,000)	(99,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2001	FY 2002	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
Project Name	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
<u>Kansas (Continued)</u>			
Elk City Lake	728,000	526,000	
	(436,000)	(357,000)	1. Conducted periodic inspection in FY 2001.
	(292,000)	(169,000)	2. None.
Fall River Lake	1,429,000	973,000	
	(745,000)	(749,000)	1. None.
	(684,000)	(224,000)	2. None.
John Redmond Dam and Reservoir	1,186,000	1,100,000	
	(719,000)	(676,000)	1. None.
	(467,000)	(424,000)	2. None.
Marion Lake	1,354,000	1,422,000	
	(936,000)	(1,009,000)	1. None.
	(418,000)	(413,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
<u>State</u>	<u>FY 2001</u>	<u>FY 2002</u>	
<u>Project Name</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
<u>Kansas (Continued)</u>			
Pearson-Skubitz			
Big Hill Lake	1,074,000	898,000	
	(584,000)	(513,000)	1. None.
	(490,000)	(385,000)	2. None.
Toronto Lake	673,000	456,000	
	(356,000)	(392,000)	1. None.
	(317,000)	(64,000)	2. None.
<u>Missouri</u>			
Clearwater Lake	2,015,000	2,184,000	
	(1,274,000)	(1,253,000)	1. None.
	(741,000)	(931,000)	2. None.
<u>Oklahoma</u>			
Arcadia Lake	417,000	429,000	
	(345,000)	(380,000)	1. None.
	(72,000)	(49,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control (Continued)

a. Reservoirs (Continued).

<u>State</u>	<u>ESTIMATED OBLIGATIONS (\$)</u>		<u>Reason for Change and Major Maintenance Items</u>
	<u>FY 2001</u>	<u>FY 2002</u>	
<u>Project Name</u>	<u>Total</u>	<u>Total</u>	
	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
<u>Oklahoma (Continued)</u>			
Birch Lake	480,000	572,000	
	(398,000)	(365,000)	1. None.
	(82,000)	(207,000)	2. None.
Candy Lake	18,000	18,000	
	(18,000)	(18,000)	1. None.
	(0)	(0)	2. None.
Canton Lake	2,656,000	3,012,000	
	(989,000)	(973,000)	1. None.
	(1,667,000)	(2,039,000)	2. None.
Copan Lake	823,000	824,000	
	(508,000)	(522,000)	1. None.
	(315,000)	(302,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2001	FY 2002	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
Project Name	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
<u>Oklahoma (Continued)</u>			
Fort Supply Lake	838,000	879,000	
	(476,000)	(423,000)	1. None.
	(362,000)	(456,000)	2. None.
Great Salt Plains Lake	209,000	234,000	
	(131,000)	(164,000)	1. Periodic inspection to be conducted in FY 2002.
	(78,000)	(70,000)	2. None.
Heyburn Lake	557,000	572,000	
	(441,000)	(397,000)	1. None.
	(116,000)	(175,000)	2. None.
Hugo Lake	1,639,000	1,670,000	
	(1,085,000)	(1,166,000)	1. None.
	(554,000)	(504,000)	2. None.
Hulah Lake	447,000	406,000	
	(313,000)	(292,000)	1. None.
	(134,000)	(114,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
<u>State</u>	<u>FY 2001</u>	<u>FY 2002</u>	
<u>Project Name</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
<u>Oklahoma (Continued)</u>			
Kaw Lake	1,756,000	1,840,000	
	(1,275,000)	(1,220,000)	1. None.
	(481,000)	(620,000)	2. None.
Oologah Lake	2,353,000	1,843,000	
	(1,171,000)	(970,000)	1. None.
	(1,182,000)	(873,000)	2. None.
Optima Lake	63,000	56,000	
	(42,000)	(36,000)	1. Decreased operations costs due to disposal of project facilities.
	(21,000)	(20,000)	2. None.
Pensacola Reservoir -	32,000	32,000	
Lake O' the Cherokees	(32,000)	(32,000)	1. None.
	(0)	(0)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2001	FY 2002	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
Project Name	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
<u>Oklahoma (Continued)</u>			
Pine Creek Lake	1,160,000	1,170,000	
	(762,000)	(780,000)	1. None.
	(398,000)	(390,000)	2. None.
Sardis Lake	944,000	913,000	
	(729,000)	(692,000)	1. None.
	(215,000)	(221,000)	2. None.
Skiatook Lake	947,000	893,000	
	(797,000)	(455,000)	1. Installed piezometers and relief wells in FY 2001.
	(150,000)	(438,000)	2. None.
Waurika Lake	1,441,000	1,426,000	
	(863,000)	(668,000)	1. Conducted periodic inspection in FY 2001.
	(578,000)	(758,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2001	FY 2002	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
Project Name	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
<u>Oklahoma (Continued)</u>			
Wister Lake	729,000	602,000	
	(620,000)	(519,000)	1. Increased cost of service contracts for project operations in FY 2001.
	(109,000)	(83,000)	2. None.
<u>Texas</u>			
Aquilla Lake	738,000	708,000	
	(592,000)	(562,000)	1. None.
	(146,000)	(146,000)	2. None.
Arkansas-Red River Basins			
Chloride Control			
(Area VIII)	1,340,000	1,267,000	
	(680,000)	(673,000)	1. None.
	(660,000)	(594,000)	2. None.
Bardwell Lake	1,453,000	1,499,000	
	(1,083,000)	(1,096,000)	1. None.
	(370,000)	(403,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2001	FY 2002	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
Project Name	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
<u>Texas (Continued)</u>			
Belton Lake	3,103,000	2,578,000	
	(1,934,000)	(2,017,000)	1. None.
	(1,169,000)	(561,000)	2. None.
Benbrook Lake	1,975,000	2,290,000	
	(1,396,000)	(1,448,000)	1. None.
	(579,000)	(842,000)	2. None.
Buffalo Bayou and Tributaries	2,029,000	2,977,000	
	(1,565,000)	(2,977,000)	1. Conduct water control study and install and monitor additional stream and tidal gauges in FY 2002.
	(464,000)	(0)	2. None.
Canyon Lake	2,689,000	2,743,000	
	(1,626,000)	(1,679,000)	1. None.
	(1,063,000)	(1,064,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2001	FY 2002	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
Project Name	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
<u>Texas (Continued)</u>			
Estelline Springs			
Experimental Project	10,000	5,000	
	(0)	(0)	1. None.
	(10,000)	(5,000)	2. None.
Ferrell's Bridge Dam -			
Lake O' the Pines	2,801,000	2,554,000	
	(1,743,000)	(1,843,000)	1. None.
	(1,058,000)	(711,000)	2. None.
Granger Dam and Lake	1,573,000	1,535,000	
	(1,088,000)	(1,144,000)	1. None.
	(485,000)	(391,000)	2. None.
Grapevine Lake	2,433,000	2,478,000	
	(1,790,000)	(1,891,000)	1. None.
	(643,000)	(587,000)	2. None.
Hords Creek Lake	1,203,000	1,190,000	
	(759,000)	(792,000)	1. None.
	(444,000)	(398,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
<u>State</u>	<u>FY 2001</u>	<u>FY 2002</u>	
<u>Project Name</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
<u>Texas (Continued)</u>			
Jim Chapman Lake	1,144,000	1,189,000	
	(593,000)	(629,000)	1. None.
	(551,000)	(560,000)	2. None.
Joe Pool Lake	759,000	784,000	
	(631,000)	(664,000)	1. None.
	(128,000)	(120,000)	2. None.
Lake Kemp	201,000	143,000	
	(194,000)	(137,000)	1. Conducted periodic inspection in FY 2001.
	(7,000)	(6,000)	2. None.
Lavon Lake	2,439,000	2,485,000	
	(1,902,000)	(1,973,000)	1. None.
	(537,000)	(512,000)	2. None.
Lewisville Dam	2,959,000	3,253,000	
	(2,203,000)	(2,305,000)	1. None.
	(756,000)	(948,000)	2. None.
Navarro Mills Lake	1,524,000	1,596,000	
	(1,110,000)	(1,152,000)	1. None.
	(414,000)	(444,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2001	FY 2002	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
Project Name	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
<u>Texas (Continued)</u>			
North San Gabriel Dam and Lake Georgetown	1,785,000	1,748,000	
	(1,200,000)	(1,244,000)	1. None.
	(585,000)	(504,000)	2. None.
O. C. Fisher Dam and Lake	1,005,000	893,000	
	(609,000)	(627,000)	1. None.
	(396,000)	(266,000)	2. None.
Pat Mayse Lake	941,000	976,000	
	(627,000)	(676,000)	1. None.
	(314,000)	(300,000)	2. None.
Proctor Lake	1,709,000	1,659,000	
	(1,143,000)	(1,257,000)	1. None.
	(566,000)	(402,000)	2. None.
Ray Roberts Lake	1,002,000	821,000	
	(778,000)	(778,000)	1. None.
	(224,000)	(43,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
<u>State</u>	<u>FY 2001</u>	<u>FY 2002</u>	
<u>Project Name</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
<u>Texas (Continued)</u>			
Somerville Lake	2,773,000	2,555,000	
	(1,755,000)	(1,837,000)	1. None.
	(1,018,000)	(718,000)	2. None.
Stillhouse Hollow Dam	1,744,000	1,719,000	
	(1,380,000)	(1,391,000)	1. None.
	(364,000)	(328,000)	2. None.
Texas Water Allocation	0	1,500,000	
	(0)	(1,500,000)	1. Studies to optimize available water storage.
	(0)	(0)	2. None.
Waco Lake	2,301,000	2,412,000	
	(1,603,000)	(1,679,000)	1. None.
	(698,000)	(733,000)	2. None.
Wallisville Lake	1,208,000	1,320,000	
	(1,208,000)	(1,225,000)	1. None.
	(0)	(95,000)	2. None.
Wright Patman Dam and Lake	2,643,000	2,611,000	
	(1,939,000)	(2,026,000)	1. None.
	(704,000)	(585,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control (Continued)

a. Reservoirs.

Scheduling Reservoir Operations. The budget estimate of \$798,000 provides for preparation, review and updating of water control manuals, real-time data collection to monitor hydrologic conditions at 93 Corps reservoirs, locks and dams and multiple purpose projects; and for the issuance of gate regulation instructions as necessary at 14 additional non-Corps dam and reservoir projects at which the Corps is responsible for flood control or navigation.

ESTIMATED OBLIGATIONS (\$)

<u>State</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Reason for Change and Major Maintenance Items</u>
Project Name	Total (Operations) (Maintenance)	Total (Operations) (Maintenance)	1. Reasons for change in Operations from FY01 to FY02(10%+/-) 2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)

Scheduling Reservoir Operations (All operations accounts)

Kansas	(193,000)	(185,000)	
Oklahoma	(386,000)	(370,000)	
Texas	(249,000)	(243,000)	
 Total Operations	 (828,000)	 (798,000)	1. None.
Total Maintenance	(0)	(0)	2. None.
 Total - Reservoirs	 83,157,000	 83,590,000	
	(55,976,000)	(59,266,000)	
	(27,181,000)	(24,324,000)	

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control (Continued)

b. Channel improvement, inspection, and miscellaneous maintenance.

Inspection of Completed Works. The budget estimate of \$645,000 provides for inspections at flood control projects constructed by the Corps and operated and maintained by non-Federal interests. The inspections are conducted to determine the extent of compliance with legal standards and to advise local interests, as necessary, of corrective measures required to ensure that project structures and facilities will continue to safely provide flood protection benefits. These projects consist of features such as channels, levees, floodwalls, drainage structures and pumping plants.

	<u>ESTIMATED OBLIGATIONS (\$)</u>		<u>Reason for Change and Major Maintenance Items</u>
	FY 2001	FY 2002	
<u>State</u>	<u>Total</u>	<u>Total</u>	
<u>Project Name</u>	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)

Inspection of Completed Works (All Operations Accounts)

Arkansas	(103,000)	(107,000)	
Kansas	(36,000)	(45,000)	
Missouri	(3,000)	(3,000)	
Oklahoma	(72,000)	(91,000)	
Texas	(374,000)	(399,000)	
 Total Operations	 (588,000)	 (645,000)	1. Increase in scope and number of project inspections in FY 2002.
Total Maintenance	(0)	(0)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

2. Flood Control (Continued)

b. Channel improvement, inspection, and miscellaneous maintenance.

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2001	FY 2002	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>Project Name</u>	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
Total Channel			
Improvements, Inspections,			
and Miscellaneous			
Maintenance	588,000	645,000	
	(588,000)	(645,000)	
	(0)	(0)	
	=====	=====	
TOTAL - FLOOD CONTROL	83,745,000	84,235,000	
	(56,564,000)	(59,911,000)	
	(27,181,000)	(24,324,000)	

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

3. Multiple Purpose Power Projects

The budget estimate of \$78,310,000 provides for the operation and maintenance of 18 multiple purpose projects, including 4 navigation locks and dams, named in the list which follows. These projects have a current operational capacity of 1,726,200 kilowatts of hydroelectric power production. Annual requirements are for the operation and ordinary maintenance of project facilities, labor, supplies, materials, and parts required for the day-to-day functioning. The requested amount also includes application of Special Recreation Use Fees (SRUF) for recreation areas.

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2001	FY 2002	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
Project Name	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<u>Arkansas</u>			
Beaver Lake	4,520,000	4,343,000	
	(3,072,000)	(3,337,000)	1. None.
	(1,448,000)	(1,006,000)	2. None.
Bull Shoals Lake	4,565,000	4,402,000	
	(3,338,000)	(3,619,000)	1. None.
	(1,227,000)	(783,000)	2. None.
Dardanelle Lock and Dam	5,937,000	5,337,000	
	(3,085,000)	(3,648,000)	1. Increased operations for navigation and management of recreation areas.
	(2,852,000)	(1,689,000)	2. None.
Greers Ferry Lake	5,933,000	4,873,000	
	(4,196,000)	(4,171,000)	1. None.
	(1,737,000)	(702,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

3. Multiple Purpose Power Projects (Continued)

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2001	FY 2002	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>Project Name</u>	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)

Arkansas (Continued)

Norfork Lake	3,626,000	3,255,000	
	(2,729,000)	(2,558,000)	1. None.
	(897,000)	(697,000)	2. None.
Ozark-Jeta Taylor			
Lock and Dam	4,072,000	3,912,000	
	(2,043,000)	(2,662,000)	1. Increased operations for navigation and management of recreation areas.
	(2,029,000)	(1,250,000)	2. None.

Missouri

Table Rock Lake	6,485,000	6,826,000	
	(4,423,000)	(5,186,000)	1. Provide power plant major rehabilitation study.
	(2,062,000)	(1,640,000)	2. None.

Oklahoma

Broken Bow Lake	1,471,000	1,549,000	
	(718,000)	(712,000)	1. None.
	(753,000)	(837,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

3. Multiple Purpose Power Projects (Continued)

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
<u>State</u>	<u>FY 2001</u>	<u>FY 2002</u>	
<u>Project Name</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
<u>Oklahoma (Continued)</u>			
Eufaula Lake	7,240,000	6,277,000	
	(2,786,000)	(3,119,000)	1. None.
	(4,454,000)	(3,158,000)	2. None.
Fort Gibson Lake	5,954,000	4,144,000	
	(2,395,000)	(1,667,000)	1. Realignment of operations and maintenance funding to more realistically reflect work being accomplished.
	(3,559,000)	(2,477,000)	2. None.
Keystone Lake	6,435,000	5,553,000	
	(2,351,000)	(2,339,000)	1. None.
	(4,084,000)	(3,214,000)	2. None.
Robert S. Kerr Lock and Dam and Reservoir	4,001,000	5,130,000	
	(2,581,000)	(3,026,000)	1. Realignment of operations and maintenance funding to more realistically reflect work being accomplished.
	(1,420,000)	(2,104,000)	2. None.
Tenkiller Ferry Lake	3,178,000	3,228,000	
	(1,761,000)	(1,568,000)	1. None.
	(1,417,000)	(1,660,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

3. Multiple Purpose Power Projects (Continued)

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2001	FY 2002	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>Project Name</u>	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)

Oklahoma (Continued)

Webbers Falls			
Lock and Dam	3,297,000	3,557,000	
	(1,858,000)	(2,429,000)	1. Realignment of operations and maintenance funding to more realistically reflect work being accomplished.
	(1,439,000)	(1,128,000)	2. None.

Texas

Denison Dam - Lake Texoma	5,517,000	5,532,000	
	(3,456,000)	(3,129,000)	1. None.
	(2,061,000)	(2,403,000)	2. None.
Sam Rayburn Dam			
and Reservoir	4,191,000	4,417,000	
	(2,582,000)	(2,643,000)	1. None.
	(1,609,000)	(1,774,000)	2. None.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

3. Multiple Purpose Power Projects (Continued)

<u>ESTIMATED OBLIGATIONS (\$)</u>			
	FY 2001	FY 2002	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>Project Name</u>	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
<u>Texas</u> (Continued)			
Town Bluff Dam, B. A. Steinhagen Lake and Robert Douglas Willis Hydropower Project	2,007,000 (1,217,000) (790,000)	1,748,000 (1,181,000) (567,000)	1. None. 2. None.
Whitney Lake	4,680,000 (2,747,000) (1,933,000) =====	4,227,000 (2,869,000) (1,358,000) =====	1. None. 2. None.
TOTAL - MULTIPLE PURPOSE POWER PROJECTS	83,109,000 (47,338,000) (35,771,000)	78,310,000 (49,863,000) (28,447,000)	

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2002

4. Protection of Navigation

Project Condition Surveys. The budget estimate of \$15,000 provides for hydrographic surveys, inspections, and studies to determine the condition of navigation channels that do not have any other maintenance work included in the budget request and disseminate the information to users of the projects. For the projects that do not require maintenance, surveys are performed at many of them in order to determine the degree of sedimentation so that users can be advised of channel conditions and future maintenance can be scheduled.

	<u>ESTIMATED OBLIGATIONS (\$)</u>		<u>Reason for Change and Major Maintenance Items</u>
	FY 2001	FY 2002	
<u>State</u>	<u>Total</u>	<u>Total</u>	
Project Name	(Operations)	(Operations)	1. Reasons for change in Operations from FY01 to FY02(10%+/-)
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY02(Threshold \$500,000)
<hr/>			
Project Condition Surveys			
<u>Texas</u>	75,000	15,000	
	(75,000)	(15,000)	1. Variation in scope and number of projects to be surveyed.
	(0)	(0)	2. None.
TOTAL - PROTECTION OF NAVIGATION	<hr/> 75,000	<hr/> 15,000	
	(75,000)	(15,000)	
	(0)	(0)	
	=====	=====	
GRAND TOTAL - SOUTHWESTERN DIVISION	260,123,000	252,027,000	
	(122,357,000)	(128,658,000)	
	(137,766,000)	(123,369,000)	